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Original Department.

Psychoses.*

DIRECT NEUROSES—TRANSMITTED NEUROSES—REFLEX NEUROSES—THEIR PHENOMENA, WITH CASES TO ILLUSTRATE THE TREATMENT OF THE SAME.

By John J. Caldwell, M. D., Baltimore, Md.†

Neural Philosophy—Rational symptoms and physical signs. When called upon to make a diagnosis of the nature of diseases the physician summons to his aid two sets of signs or symptoms; one of these is known as rational symptoms, the other as physical signs.

The Uses of the Special Senses.—In proportion as we can make use of our special senses—sight, hearing and touch—will our conclusions be just and accurate; the less we can bring those to bear in estimating the alterations produced by disease the more uncertain will be the estimate.

Lænnec's Discoveries.—The introduction of physical means of diagnosis marks an era in the history of medicine, and Lænnec's great discovery gave an impetus which is felt in our time. The accurate diagnosis of disease of heart or lungs by auscultation and and percussion stimulated the profession to apply similar means to other organs of the human economy, but especially to the uterine apparatus, so that at the present time its diseases are as surely appreciated as though it was external; previously they were obscure as belonging to internal organs hidden from sight and touch. On the other hand, the obscurity which attached to the nature of nervous affections

*From advance sheets of a work to be issued by the author.

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was due to our inability to bring to bear in our investigations physical means of diagnosis.

Electricity the Pathfinder to Nervous Troubles.—The brain and spinal marrow, hidden away in air-tight compartments, defied every means in our power of diagnosis, if we except the electrical tests, these being the true indicators of physical and functional derangements of the nervous system, and all confess that an appeal to rational symptoms alone for nervous diagnosis, is, to say the least, a hap-hazard affair. This arises from the wonderful unity of the nervous system, in virtue of which a lesion of one part may be manifested by reflex action in remote organs or tissues.

An Apparent Exception.—Of all the organs of the economy of woman, the uterus presents the most remarkable exemplification of this fact. Its pathological states and its menstrual conditions, lying in ground debatable between physiology and pathology, give rise often to symptoms which would never direct our attention to the uterine apparatus, if we were to appeal alone to rational symptoms.

Hysteria, in some of its phases, paralysis, hyperæsthesia of the surface of body, of the special senses of sight or hearing, pain in remote organs, as mammary glands, or pleura, liver, stomach, brain, etc., are examples of some such manifestations; indeed, it may be said that there is scarcely an organ which may not manifest symptoms of derangement in consequence of uterine disturbance.

Sympathetic Affections—A Misnomer.—These have been usually spoken of as sympathetic affections, and the uterine lesions attacked with all that vigor can dictate; musket and bayonet, cannon and chassepot, it is burned with caustic, frozen with cold and scalded with hot water, scarified and incised and often left propped up by a horse-shoe, or impaled upon some sort of spike kept in situ by perineal bands or thigh straps and belly supporters.*

Reflex Uterine Troubles.—I regard the uterus as the best abused organ of the human economy; no man would submit to such treatment, and I must enter my protest against the torture which only patient and confiding woman could endure. Much of this arises from that horrible word "sympathetic" which should be substituted by the word reflex—cure the uterus and the "sympathetic" affection will disappear. Such is not the case, for while the uterus may be the *fons et origo* of the so-called sympathetic affections, I would ask your attention to the fact that remote tissues and organs become the actual seat of disease, actual disease of the mammary gland, accompanied by pain, redness and swelling, terminating in abscess, is not unfrequently the result of primary uterine trouble.

Reflex Affections.—Paralysis having its remote cause in the uterus is due to lesions of the nervous centers; the same may be said of cerebral disturbances. The stomach becomes diseased as do the pleura and liver; their functions are not performed because of actual disease of the organs and will continue to be suspended, although the remote cause, the uterine lesion, may have been remedied. Although the uterus is diseased you must treat the affection of the mammary gland, the pleura, the liver, the paralysis, the cerebral disturbance.

Chlorosis.—Chlorosis is not an uncommon condition of chronic uterine disease, and I venture to say that no practitioner ever failed to recognize this as an actual disease to be specially treated. The same is true of the other so-called sympathetic affections; they must be treated because they have become the actual seat of disease; they require the same treatment as though the affection originated in the organ itself, at the same time that the uterus is restored to its state of integrity.

Unity of Nervous System.—On the other hand, the uterus may become the seat of disease, secondarily affected, and this because of the unity of nervous system, in virtue of which all organs and tissues of the economy are brought in relation, so as by their co-ordination to form the individual. When the machine is sent to shop, the entire mechanism must be overhauled—main-spring, balance wheel and cog-wheel—well oiled and wound up, to go under spring power, steam power, or nerve, or electric power.

Contradiction.—The manifestation of different symptoms in individuals, the subject of the same uterine lesion, would seem to be a contradiction to the aphorism, that certain causes produce certain effects, as the "laws of the motions of the heavenly bodies"; but it is not so in reality, because each individual is a distinct physical problem; because he or she is an individual; because in the progress of transmission of peculiorities, variations occur, resulting sometimes in a higher, at others in a lower, specimen of the variety of the race. It has, indeed, been by these differentiations that specialized types of the human race, or varieties, if you choose, have been brought about. Thus it happens that in individuals the same lesion will give rise to great diversity of reflex symptoms, to manifestations of disease in different organs.

Abnormalities of the Laws of Growth.—The laws of growth are stable and uniform. When the workings of these laws of development are interfered with by accident or scanty nourishment, or by the transmission of the effects of such accidents or abnormal products from parents, or from parents who have been affected by them, the results are usually abnormal, more or less distorted forms, with greater or less defects, which again show the laws governing the production of abnormalities.

Pathological Laws.—Thus we apply the laws of health to explain the phenomena of disease; what we call functional derangement being as much in accordance with law as normal or physiological acts. We might call it pathological law. It is then because of the specialized condition of the individual that uterine affections do not in every case give rise to the same train of nervous symptoms, or, to express it more justly, the same lesions in all cases. Such is my reply to those who reject the opinion that sclerosis of the spinal cord is caused by uterine disease, because in so many cases no such results happen.

Time as an Element in Neurology.—In discussing secondary or reflex lesions, "time" must be taken as an element in forming our conclusions; given a certain operating force, no matter how small, its effects can be predicted, if time enough be allowed. If such be the case in purely physical phenomena we cannot withhold our assent when the principle is applied to living structure, whose resistance becomes less and less day by day, whilst the operating force is commutative.

*Science of reflex actions would have saved the uterus many of these attacks.

Commutative Power.—One clock set in motion will start the rest in the room if all be made synchronously. Cumulative molecular effect, power of driving air or rain, cumulative effect of molecular doses of medicine, so the continuous and prolonged irritation whether direct reflex or transmitted, will as certainly produce effects as the sudden or violent shock; "*ubi stimulus ibi afluxus*" and we have the conditions of various manifestations of nervous diseases, having a centre primarily in the uterus, and not unfrequently sclerosis and other reflex diseases of the spinal cord or ganglia which supply the uterus, as well as other parts with energy. Growth as the result of super-supply of nutrient blood, and hypertrophy is generally attended with hardening. This condition we very commonly meet with as the result of what we call inflammation; it is in fact growth, due to afflux of blood containing tissue food; absorption may or may not take place. It is a pathological condition, however, and may or may not interfere at first with the normal function of the organ. This is witnessed in hypertrophy of the heart, which at first is adjunctive force necessary to propel the blood, on account of defect in some part of the pump.

Ganglionic Relations.—In like manner the ganglia (centre) receive a stimulus transmitted from the uterine centre of disease and respond by generating nerve energy which is manifested in remote organs by means of fibres of conduction. It seems hardly possible that a long continuance of irritation, whose primary effect is increased action followed by depression, should not result in reflex lesion of these ganglia, alternate excitement and depression, periodic exaltation and corresponding depression.

Centric and Eccentric Causes.—One of the most familiar examples of eccentric causes producing centric effects, is tetanus from wound of foot, or gunshot wound, or intestinal irritation.

All recognize the fact of centric lesion, yet every one who sticks a nail in his foot does not have lockjaw by reflex, nor does this direful mishap occur from all gun-shot wounds, or in all who have intestinal irritation.

Reflex Paralysis.—Long persistent enormous piles sometimes, but not always, cause reflex paralysis of the lower extremities. Dr. Campbell's case is one of the most interesting on record, in which the effect of gun-shot wound of elbow, involving ulnar nerve, produced so severe and curious a state of reflex hyperæsthesia. In this case I have not a doubt that but for the prompt and efficient treatment instituted, the reflex lesions of the spinal cord would have become permanent, resulting most probably in sclerosis of some part of cord, reflex paralysis, and finally death.

Hysteria, A More Properly Reflex Paresis.—In a delicate woman, the subject of uterine trouble, the above case would have been called hysteria and regarded as sympathetic, or more properly reflex, paresis of the splanchnic or trophic centres. In this case, indeed, his non-professional friends attributed his condition to the wound in his elbow, after it was in fact completely healed. In many individuals the case would have terminated in reflex tetanus, or reflex spinal meningitis, depending upon the specialization, so to speak, of the individual.

Reflex Tetanus.—Dr. W. J. Strother's (of Culpepper) case of wound of calf of leg and exposure of posterior tibial nerve resulted in reflex tetanus, while I can recall a case of hyperæsthesia of the senses of hearing, sight and touch in the upper extremities of the lady, whilst there was paralysis of the lower extremities. The case was accompanied by violent convulsions, opisthotonos from time to time. The cause was overwork (clerk in one of the departments at Washington) to which was added the distress of losing her place. I have no doubt of an actual lesion of the spinal cord or some part of it. She continued in this state for four months, and the affection would have become permanent, perhaps indurated, but for rest, good nursing and appropriate treatment.

The Genito-Urinary Centres.—The opinion has long prevailed that the spinal marrow presides, so to speak, over the organs of generation, that here was generated the nerve-power necessary for their functional activity. But medical men did not rest satisfied with so vague a declaration "that the spinal cord presides over such functions," but soon showed that this office was performed by the lower part of the cord. Can we not go farther and point out that certain spinal centres are the source of their energy, and point to the very ganglia themselves?

Frequency of Diseases of the Sexual Organs in Insane Women—Sexual Neuroses as Causes Insanity.—Says Dr. Danillo, who examined 200 insane women and found that 162, or 80 per cent., were suffering from various diseases of the sexual organs: Out of 140 menstruating women, between 15 and 45 years of age, only twenty were without some uterine anomaly. Out of sixty women who had ceased menstruating between 42 and 75 years of age, eighteen were the subjects of some affections of the genital organs. Acute and chronic endometritis and metritis were most frequently observed; less frequently, displacement of the uterus, dysmenorrhœa, acute and chronic ovaritis, and other diseases. The above results show that the complications of psychoses with uterine disease is a frequent occurrence, and of the greatest clinical interest.

Epileptiform Orgasm—Paroxysms in the Female Resembling Nocturnal Emissions in the Male.—Dr. Erich has related the case of a young kept girl, who went to the country where she could not indulge in sexual intercourse. She then had erotic dreams, accompanied by complete orgasm. On her return to the city these continued, occurring even during the nights in which sexual intercourse took place. She states that the pleasure from the dreams is rather greater than the intercourse itself.

Dr. Morris said the case was similar to cases reported to the Med. and Chir. Faculty of Md., about five years ago, by himself, and which are to be found in the transactions of that body. He has now under care a married female, who has diurnal as well as nocturnal emissions. Such cases are not very common. The discharge occurs by jets. I term such cases sexual epilepsy, and treat them as such by the administration of atropine and bromides at bed-time, that they may sleep off the physiological effects of atropine. During the day I administer nitro-glycerine. The cases are also apt to be nymphomaniacs, and require additional treatment of nitrate of silver locally, strong enough to cauterize the nymphæ and the surrounding parts to allay the hyperæsthesia and hyperæmia, or excessive irritability.

Differential Diagnosis Between Hysterical Paralysis and Poliomyelitis Anterior.—Judging from the history,

symptoms and progress of the case, in a large number of instances, it is difficult or impossible to diagnose between paralysis from hysteria and from poliomyelitis. Correct differentiation between them is of the highest importance, as the treatment successful in the one, is useless or may be injurious in the other. In order to arrive at a true diagnosis, we must, as far as possible, apply physical agents in their investigations. In the disease under consideration the conditions of the reflexes resulting from physical manipulations afford us valuable information. Although open to certain exceptions, electricity supplies us with an agent which, in the large majority of cases, will definitely enable us to correctly decide whether a given paralysis is due to organic disease of the anterior cornu of the cord or to that affection to which we apply the term hysteria.

Treatment of Epilepsy.—Dr. Saundry says in the treatment of epilepsy: The value of combining the bromides of potassium, sodium, and ammonium, as recommended by Professor Brown-Sequard, the advantage of adding tincture of digitalis and sometimes theine, to the mixture to counteract the depressing influence of the bromides, the utility of zinc as an adjuvant in the treatment, the successful use of borax in some cases of obstinate epilepsy, of which two illustrations are given, the value of theine or caffeine and nitro-glycerine in the treatment of epileptic vertigo are manifest. My experience goes to show that the addition of atropine taken at bedtime to counteract the depressing influence of the bromides, and as a supporter of the trophic centres, is superior to all the above named combinations, in the treatment of these reflex epilepsies most of them being due to irritation of the digestive centres and reflex upon special nerve centres.

Reflex Man.—Says Dr. Carpenter: In man there is an automatic action which continues through life. The act of sucking is perfectly performed by a newborn infant; there is great complication of movement, but it is wholly automatic. In puppies the cerebrum has been removed and the act of sucking continued as perfectly as before. The act of swallowing is purely reflex. By an act of the will the food is carried to the lower muscles of deglutition, and they then act automatically. The stomach acts automatically in bringing food from its interior to its coats. The action of the pyloric valve is also automatic, as are the peristaltic movements of the intestines. The heart's action is likewise automatic, and thus it is seen that the important functions necessary for the preservation of life are carried on without our consciousness. The whole life of the lower animal is automatic.

Menthol and Chlor-Anodyne for Relieving the Pain of Neuralgia—A Report of Nine Cases.

By F. E. Stewart, M. D., Ph. G., Philadelphia, Pa.*

FOR some time past I have been experimenting in private and hospital practice with menthol, used alone or with chlor-anodyne, in the treatment of neuralgia for the purpose of relieving pain. So much success has attended the experiments that I deem them of sufficient worth to report to the profession. I have had in my own practice nine cases successfully treated, and several friends who are using the drugs named report quite similar results. At some future day I propose to glean all of these cases, if possible, and thus afford material by which to judge more accurately of the true value of the remedies as curative agents. Now, the purpose is to call attention to them as palliatives. It is my hope that this report may result in their further use and report in the Gazette, so that the Working Bulletin to be compiled in the future may serve as a basis for a more critical article on the therapy of menthol and of chlor-anodyne.

Case 1. Miss W., æt. 23; residence New Jersey; constitution and general health good. No hereditary predisposition can be traced. Habits and mode of life those of most young ladies in fashionable society —late hours, parties, suppers, etc., but not in excess. Lives in a malarious district, to which the attack is referred. She is subject to these attacks. The invasion is usually sudden but not abrupt, and is generally forestalled by the usual premonitory symptoms —dull pain, and uncomfortable sensations at the part affected. Miss W. usually is attacked with a neuralgia of the fifth pair of nerves, more commonly the ophthalmic division. She suffers with intense headache, with pain in the forehead and scalp. The present attack is more than usually severe. I prescribed menthol 3 j dissolved in bromide of ethyl 3 ij, to be rubbed on the affected region. In five minutes' time the pain completely disappeared and the attack was broken up without further treatment.

Case 2. Mr. D., æt. 27; lawyer; residence New Jersey. Neuralgia of the fifth pair, inferior maxillary division. Constitution and general health good. There is a tendency to nerve troubles in his family, and he has been exposed to malaria. At the time he had been overworking for a long period of time, becoming somewhat exhausted and debilitated in consequence. This was attributed to be the cause of the attack. I was called to see him at midnight. He had been suffering for several hours and the pain was growing worse. An application of the menthol solution relieved him in a few minutes and he fell asleep and rested quietly till morning. The attack was completely broken.

Case 3. Mr. L., æt. 48; wholesale druggist; residence Philadelphia. Neuralgia of the fifth pair, ophthalmic division. Family history not taken. General health good. A man of correct habits and mode of life. For several days he had been suffering from "headache," pain in forehead and scalp. Cause of the attack not known. Was relieved from the attack in a few minutes by an application of menthol dissolved in alcohol.

Case 4. Mrs. D., æt. 23; residence New Jersey. Constitution and general health good, as a rule, but subject to occasional attacks of severe neuralgia of the fifth pair. The duration of these attacks varied in time from a few days to several months. Hereditary predisposition to gout. At present exposed to malaria. This patient had been under my notice for six or seven years. For a subsequent attack she had been under treatment in Philadelphia nearly all winter, and most of the time confined to the bed. Before this her eyes had been examined and astigmatism and

*Physician to the Northwestern Hospital of the City of Philadelphia.

hypermetropia corrected by appropriate glasses. This seemed to lessen the number of attacks of neuralgia and their severity. The present attack came on in the afternoon. There was dull pain, with more or less heat and uncomfortable sensation in the part affected, followed by a very severe headache, which increased as night approached until it became almost unbearable. The character of the pain was darting, tearing and lancinating, sometimes affecting the forehead and scalp and at other times more severely the temple and side of the face. Spots of tenderness existed over the supra-orbital foramen, infra-orbital foramen and just in front of the ear. The symptoms were greatly aggravated by mental exertion, by loud noises, light or fright, and the patient complained of nausea. Pain in the eye-ball also existed. An application of menthol dissolved in bromide of ethyl stopped the pain in about half an hour, and it did not re-appear, though for several hours after some tenderness remained. One peculiarity noticed in this case was that the application over one branch of the nerve relieved the pain in that portion of the face to which it was distributed, and the pain seemed to be driven to other branches. This was relieved in like manner so that it was chased, as it were, back and forth over the head and face. This patient has had several attacks of facial neuralgia since my treatment in 1880, but none of them of very severe character or long duration.

Case 5. Mrs. C., æt. 28; residence Delaware; mother of one child and pregnant with the second. Neuralgia of the fifth pair, ophthalmic division. Hereditary predisposition to gout; is subject to attacks of severe facial neuralgia. These attacks usually last for eight or ten hours, leaving the patient exhausted. I found her lying in bed suffering the most excruciating pain in the forehead, temple and scalp, with spots of tenderness over the nerve at the supra-orbital and infra-orbital foramina. The attack had developed with the usual premonitory symptoms, dull pain, feeling of weight and uncomfortable sensations; but the pain had increased until it now was the chief symptom. There was no nausea or vomiting. An application of the menthol dissolved in bromide of ethyl was followed by an immediate relief of the pain; the patient soon fell asleep and awoke the next morning free from her headache, though somewhat exhausted from protracted and intense suffering.

Case 6. Mrs. S., æt. 55; residence Delaware; mother of three children; youngest 20. Constitution and general health fair, but a predisposition to melancholia. Subject to occasional attacks of "sick-headache." When these attacks occur the patient is unable to be about, but is obliged to take to the bed. There is an abnormal sensitiveness to light and sounds, the appetite is lost, and nausea and vomiting occur. The face is flushed, the eyes suffused, and the head feels hot. Accompanying the symptoms there is general debility and prostration; the pulse is small and feeble, and the patient complains of being cold. The headache is apt to be developed in the morning and to continue all day. On waking up the next morning there is a sense of soreness in the head and more or less debility.

These attacks are apt to follow mental excitement or worry, bodily fatigue, exposure to the sun, or imprudence in eating. Bromide of potassium in full doses seems to have afforded the most relief, but not sufficiently to prevent great suffering, or to cut short the duration of the attacks. It was during one of these attacks that I was called in, and learned the history as above. Upon examination I found the pain to be neuralgic in its character and principally affecting the ophthalmic branch of the fifth. There was tenderness on pressure over the supra-orbital foramen, but no spots of tenderness could be detected elsewhere. This case was treated somewhat differently from the others. The treatment consisted of fifteen drops of chlor-anodyne (P., D. & Co.'s) internally and the external application of menthol dissolved in bromide of ethyl. In less than ten minutes the pain had nearly disappeared and the patient was able to rise and attend to her household duties. For some hours, however, much depression remained, some soreness at the affected spot, and a general feeling of dullness and unrest. This passed off and the attack was declared by the patient to be at an end.

Case 7. Mrs. R., æt. 24; residence Philadelphia; neuralgia of the fifth pair. After five weeks of intense suffering she came to the hospital with the following history: Constitution and general health good; no hereditary predisposition; habits and mode of life regular; hygienic influence to which exposed seemed to be of the best; yet she is subject to periodic attacks of neuralgia which come on at about the same time year after year. This attack, however, was more severe than any she had before experienced. There was intense pain in and around the ears, and in the cheek and temple. Her cheek was swollen, red and hot. Hyperæsthesia of the skin existed to such a degree that the least touch was greeted by an exclamation of pain. Hot poultices and homœopathic remedies had been tried in vain. Before making a diagnosis the eyes and affected ear were examined by the eye surgeon of the hospital, Dr. H. F. Hansell, with negative results—that is, no cause could be found to account for the severe pain and swelling. A dose of fifteen drops of chlor-anodyne was now administered internally and an application made of the menthol solution to the affected region. The result was that in less than ten minutes the pain and hyperæsthesia were entirely gone, only a slight feeling of soreness remaining. She exclaimed: "For five weeks I have suffered this pain, and then to be relieved in five minutes! Why didn't I come here before."

Case 8. Mr. N.; residence, Philadelphia. Facial neuralgia; constitution and general health excellent; no hereditary predisposition; habits and mode of life and hygienic influence, to which exposed, good. Has been afflicted with neuralgia of the fifth pair for some months past. The pain is continuous, but with exacerbations, and seems to be principally confined to the anterior maxillary division. There is a spot of tenderness on the auriculo-temporal branch, just in front of the ear; but no tenderness noticed elsewhere. For the reason that with the pain there is sometimes clonic spasm, though no paralysis, I am inclined to believe some congestion of the nerve exists. To this patient was made an application of the menthol dissolved in alcohol (℥ j to ℥ ij), which afforded immediate relief. He rested well most of the night, though before the sleep was broken. About four o'clock in the morning he awoke habitually, and remained awake for some time. The morning paroxysm occurred, however, in spite of the measures

taken for its relief, but another application of the menthol soon had it under control. But the pain, though lessened, still continued during the day. Resort to the chlor-anodyne was consequently had. This added very much to the duration of the relief, but still the pain continued, though the patient said he was much better. A spell of rainy weather coming on, a fresh exacerbation occurred; relieved greatly, however, by the use of the remedies. This patient is still under treatment, and the case will be reported in full hereafter.

Case 9. Mrs. C., æt. 29; residence, Delaware; mother of two children. This case is reported as a new one, though in the person of Mrs. C., reported above as Case No. 5, a year and a half has past, and she has had several attacks of neuralgia, though not so severe as the one for the relief of which I was called in before. She says that this attack, however, is the worst one she has ever experienced. An exhausting trip to a neighboring city and exposure to cold and wet seem to have been the exciting cause. The pain was agonizing, and grew worse in spite of home remedies employed to relieve it, until the poor patient could not control herself because of the torture it occasioned. I found her in bed, tossing from side to side, and exclaiming again and again, "I shall become insane unless this pain can be stopped!" The neuralgia in this instance, as before, was principally in the ophthalmic branch of the fifth pair, with the usual points of tenderness. There was no nausea or vomiting; but a weak pulse and much depression existed. A dose of chlor-anodyne (15 drops), administered internally, followed by an external application of menthol dissolved in alcohol, relieved the pain completely in less than ten minutes, and the exhausted patient with an exclamation, "Oh, what peace!" went to sleep and enjoyed a good night's rest. Some soreness of the face and scalp, and more or less general debility followed on the succeeding day; but the attack was completely cured.

Neuralgia, according to Flint, is a term of modern date, and embraces a group of local affections characterized by pain which may occur without inflammation or any appreciable changes in the part affected. All that can be said of the pathological character of the affection, in these cases, seems to be that they involve a morbid condition of sensibility. Hammond gives to it the name "neural hyperæsthesia," and says that no designation in medical nomenclature has been more abused than this, for any pains, the origin of which cannot readily be ascertained, and many which are well known to depend upon central lesions, are called neuralgia. The cases which I have reported above, however, were evidently instances of neural hyperæsthesia, one of them, possibly, neural congestion. As my purpose in this report is merely to treat of menthol and chlor-anodyne as palliatives, I have said nothing with regard to the general treatment of the patients afterward. Three of them are still under my care, and still suffer occasional attacks of neuralgia. But their severity is greatly modified by resorting to the drugs which they keep in the house for all occasions, and recommend to their friends. The use of the menthol in one case to whom it was thus recommended, reports that after a time it lost its effect. Further information with regard to its use, and especially concerning this point, is desirable.

Ophthalmic Memoranda, from the Eye Clinic of S. W. Hospital, Philadelphia.

By H. F. Hansell, A. M., M. D.

THESE cases were selected from the note book of the hospital on account of their general medical interest—not from any great rarity, difficulty of diagnosis, or remarkable treatment—and recorded with the hope that they may be of service in treating similar cases.

Case 1. Carrie C., a little girl of about three years, was brought to the hospital by her mother for a rather unusual and interesting condition. The mother said Carrie and her sisters had often been "bothered by crabs" on different parts of the body, but never before had these uncomfortable parasites shown themselves in their present quarters—in the ciliæ. The diagnosis was very easy to establish and easy to verify. At the roots of the eye lashes, which were somewhat matted together, directly on the edge of the lid about its center, was a wandering pediculus pubis. It was removed by the forceps and afterwards placed under the microscope, when its several and characteristic parts could be readily recognized. The treatment was very simple—one or two applications of Pagenstecher's ointment—hydrarg. ox. flav., gr. 1 to vaseline, ʒ j, were sufficient to cure the case. To prevent a return, the mother was directed to wash the child daily and keep it clean in all its parts.

In New York city pedicula pubis in the ciliæ is not very unusual, but in Philadelphia, where the sanitary condition of the poor is so much better, among about 3500 cases observed in the past three years, this was the first "pediculus pubis ciliaris."

Case 2. M. E., married woman, æt. 58. Suffered with her eyes for eighteen months before appearing at the clinic. Her earliest symptoms were slight dimness of vision, with photophobia. Atropine was instilled and cholesterine crystals—beautiful white shining crystals of varying shape—were found in great abundance in the vitreous body; also, slight hypermetropia, for which correcting glasses were ordered. Prescribed potass. iod., gr. x, t. d. Mrs. E. wore the glasses and took the medicine as directed, but with no apparent benefit. It should be noted that some time before applying for treatment at the eye clinic, she had been treated for some uterine disorder and was benefitted, though she still had slight leucorrhœa. The next time she came under the observation of the writer was one year after above diagnosis had been made and treatment ordered. During that time she had been under treatment at another eye hospital for her ever-increasing difficulty. The voluntary closure of the lids, to shield the eye from the light, was followed by a tonic spasm of the orbicularis palpebrarum muscles, so severe that the lids were closed persistently, with the exception of perhaps one minute in the entire twenty-four hours, and any attempt to open them on the part of the physician for inspection excited a spasm of many of the facial muscles. At intervals, by a rapid inhalation through the nose, the spasm would disappear for an instant, to return as bad as ever. The patient was practically blind, though she had two good eyes, and was led wherever she went. Every possible treatment for blepharospasm—tonic or clonic spasmodic closure of the lids—was resorted to without the slightest trace of success. All the medicines so

highly recommended for such nervous affections were tried in vain. Iron, quinine, in small and large doses, iodide of potass., inhalations of nitrate of amyl, etc., were of no avail. The operation of dividing the orbicularis muscle at the outer commissure had been advised and performed; no change in the intense spasm after the wound healed. The writer was convinced, beyond a reasonable doubt, that the case would never get well until extraordinary measures were tested, and so he determined to try the effect of division and stretching of the supra-orbital nerve. The patient was thoroughly etherized by Dr. A. Hewson, Jr., and the spasm vanished. The nerve was divided, but not stretched. For several days after the operation, Mrs. E. was able to open not only the left eye, over which the supra-orbital nerve had been cut, but also the right. Then slowly her old condition seemed to return, but never reached its former severity. Two months afterward the patient began to improve until in about two months more nearly all trace of the blepharospasm had disappeared and she was once more enabled to occupy her useful station in society. Now, eight months after the operation, she suffers only from an occasional closure of the lids for a second. The condition is reversed. Formerly lids open only for an instant, closed the rest of the time. Now open the entire time she is awake except the sudden instantaneous closure at long intervals. No medicines were taken from the time of the division of the nerve to the present.

In considering this case we are confronted with the question: "Did the operation effect the cure, and if so, how are we to account for the delay of two months between it and the beginning of the recovery?" The therapeutic action of the division of a nerve is only a matter of conjecture. When it is simply divided the two ends are sure to heal together and the continuity of the nerve is restored. When, however, a piece is exsected and the ends reunite, a radical change has taken place and new tissue, corresponding in extent to the piece removed, is supplied. Is such a nerve capable of resuming its normal functions and hence its liability to disease? Instances of the removal of one to two inches of the sciatic nerve for the cure of sciatica without destruction of the usefulness of the limb, are not few, and some are successful. It is doubtful, however, whether we are justified in attributing the good result entirely to the operation, but it appears reasonable to suppose it had some influence for good.

Case 3. John F., an Irishman, æt. 30, met with an unfortunate accident when on the steamship which was bringing him as an emigrant from Ireland. He was about to open a lemonade bottle when it burst, a piece striking him in the left, the only good eye. The right had been blinded several years before by an inflammation induced by an injury. The eye became red and sore and the vision much diminished. The surgeon on board treated the eye by some local application which apparently produced no good effect. When the vessel arrived at the dock, John was so blind that his companions led him off the ship. The next day—the fifth from the accident—his mother brought him to the hospital in the following condition: Right perfectly blind and eye-ball soft and phthisical; left, slight scar on cornea, partial anæsthesia of the cornea; intense ciliary and conjunctival injection—indeed, every blood vessel in the anterior part of the ball was filled to its utmost; tension +2, much higher than normal; the sight was very bad, counted fingers at six inches only. On account of an old opacity in the lens capsule opposite the pupil and the opaque vitreous, it was impossible to learn the condition of the retina by the ophthalmoscope. The patient suffered severe pain in the eyeball, forehead, side of nose, and temple, becoming worse at times. The diagnosis was traumatic acute glaucoma with hemorrhage into the vitreous. He was ordered to bed and placed upon the following treatment: Low diet and no hot drinks, a purge and infusion of jaborandi leaves. Locally eserine sulph., gr. ij–℥ j, to reduce the high tension, and cold water dressings. The next day the eye was less red, the pain had mostly disappeared, and vision about the same or slightly improved externally, tension+1. This improvement continued until the fourth day, when the symptoms returned as when first seen. All that medicines could do had been done, and now operative interference was necessary to save the fast going sight, and restore that already lost. An iridectomy upwards was performed without the administration of ether. The eye was bandaged, and patient left quiet until next day. Without following each day's detail it is sufficient to note that the improvement began with the operation and continued one slight interruption,—a fresh hemorrhage into the vitreous resulting from exposure to the hot sun for several hours—until the patient was discharged. Vision had increased to one-half the normal, where it was limited on account of of the old opacity on the lens capsule. His only treatment was pot. iod., gr. x, t. d., to cause absorption of the blood in the vitreous. The eye was inspected when the vitreous cleared sufficiently and found to be normal. This case differs from the idiopathic glaucoma in several particulars, the typical case has four stages:

1. Glaucoma imminens or G. in the stage of prodromes, characterized by early presbyopia. The patient must wear glasses for reading, earlier or stronger than the age warrants; a colored ring surrounds a light at some little distance from it; moderate pain in the eye and forehead at intervals, attended with a slight increase of tension, indolence of reaction of iris, light opacity of anterior chamber and hyperæmia of conjunctival vessels.

2. Glaucoma evolutum or confirmatum, characterized by increase of tension; excavation of optic disc (nerve) and diminution of power of vision.

3. Glaucoma absolutum in which the G. has so far advanced that the vision is totally destroyed and is beyond the reach of any medical interference.

4. Glaucomatous degeneration, or G. phthisis; gradual change and atrophy of all the different parts of the eyeball.

In our case the stage of prodromes was wanting. Instantaneously as the result of the injury an acute glaucoma was developed, followed by an almost complete loss of vision in a few days. The pupil was also contracted, and although the cornea was slightly anæsthetic there was no deposit on its posterior surface. The nerve also showed no excavation, probably because the tension was reduced before the nerve had yielded. The case was diagnosed acute traumatic glaucoma on the following grounds: loss of vision, especially nasal side of field; high intra-ocular tension; anæsthesia of cornea; and the diagnosis was confirmed by the favorable results of the iridectomy.

Patent Medicines.

By Wm. Harris, Hamburg, Pa.

AMONG intelligent physicians and apothecaries there exists a wide-spread and well-founded opposition to this class of medicines, which is shared to a very large extent by educated people everywhere. This opposition is based upon the fact that most of these remedies are manufactured and put on sale by parties who know little or nothing about the properties of drugs, the preparation of medicines or the treatment of diseases, and are, therefore, either worthless or positively injurious to those who purchase and use them. The manufacturers and proprietors of these preparations have persistently asserted that this opposition by physicians is based solely upon self-interest on their part, and have also assumed that the sale of these medicines by druggists and apothecaries is a matter of self-interest, being a source of profit to them. Both the assertion on the one hand and the assumption on the other are false, and the contrary is the truth. The business of a physician is the treatment of diseases, and, primarily it need make no difference to him whether his patients dose themselves sick with patent nostrums or are taken ill by the usual exposures and mishaps of life. The sale of patent medicines increases rather than diminishes his practice. Since the treatment of diseases and the sale of drugs and medicines are inseparably connected, the apothecary is benefitted with the physician by the injury inflicted upon the public through the use of these secret nostrums; and viewed in this light only can they be considered profitable to him, since they cost him much more than they are worth and at least three times what he could produce the same or better medicine for in his own shop.

Since the judgment of competent men is against the use or sale of these nostrums, the injury they inflict being far in excess of the good they do, why are they so extensively used? Simply and solely because they are advertised. The best of literary talent is employed and extravagantly paid to write advertisements, pamphlets, almanacs, circulars as well as certificates, and men are continually racking their brains to find some new and taking form, some attractive combination of type and cut, some novel and striking design for advertising and bringing these wares to the attention of the public. Vast sums of money are expended in newspaper advertising, the mails are flooded with circulars, rocks, buildings and fences are smeared with glaring letters, and glib-tongued agents are sent as emissaries among us to introduce these nostrums and promote their sale and use. The druggist is sought as an ally in the nefarious trade, and importuned in all possible ways. Advantage is taken of business rivalry and competition, the sole agency, his name appended to a newspaper advertisement, a fine picture, clock, frame, mirror, or other adornment for his store is offered, and his influence in favor of the nostrum is eagerly sought; because it is well known that his personal recommendation seldom fails to effect a sale. Very often the druggist is persuaded to purchase a stock of the advertiser's stuff. The advertisements suddenly cease and his shelves are burdened with the unsalable and worthless trash. In this way tribute is being continually levied upon him and what is lost by dead and worthless stock makes a very considerable inroad upon the supposed profits of this branch of his business. So long as fortunes are spent every year in pushing these goods upon the market we may be forced by a created demand to supply what is asked for; but it is high time that good apothecaries should discountenance a trade that disgraces their profession and does injury to their customers.

The money spent in advertising necessarily leaves but little to be expended upon the nostrum itself, which dare not cost much more than the bottle and label, or package and wrapper, and any good apothecary can put up a better preparation at one-fourth the cost to him at a moment's notice. What is our remedy against this nostrum nuisance, and what course should we pursue? First, discourage their sale by exposing their true character to those who apply to us for them. Second, if the public will have medicines in such a form, substitute for them scientific pharmaceutical preparations properly labeled and directed, having the formula for their preparation upon every bottle or package. And just here it is proper to remark, that while manufacturers stand ready to supply us with such preparations, all finished to place upon our shelves or hand to our customers, it is not in the highest degree complimentary to our industry, intelligence or skill as apothecaries to purchase what we can quite as readily, neatly and cheaply prepare in our own laboratories. Most of the prominent patent medicines of the day have been analyzed and formulas for their preparation published, and if our fraternity should think proper to take the matter in hand, the composition of every one would be revealed as soon as it is put upon the market. This would deprive them of the element of secrecy which to many people seems to be a potent charm. A true physician will not prescribe a remedy without knowing its composition, and we might with equal propriety refuse to sell a medicine without having its formula furnished us.

The patent medicine law in Pennsylvania should be looked after and in the event of a failure to get it repealed, have it so amended as to include within its provisions all who deal in proprietary medicines to any amount, however small. This would put all dealers in such goods upon an equal footing before the law, and be a just retaliation for the rebate system which is now being applied in order to increase the efforts of jobbers in pushing this class of goods.

By virtue of our education and experience, gained through the practice of our profession, we are the conservators of the public in the matter of drugs and medicines, and we owe it to our fellow men to stand as a guard between them and the harpies who for the sake of gain would trifle with the lives of the afflicted, rob them of their money, and cause them to waste precious time in the delusive hope of being cured, while the knowledge and skill of the physician are held in abeyance until those fearful words "too late" must be spoken and the sufferer sinks into an untimely grave.

Viburnum Prunifolium.

By E. W. Roe, M. D., Braceville, Ill.

I HAVE used quite a number of the new remedies, so-called, recently introduced, and with much varied success, but with none have I been so happily both surprised and pleased as with the viburnum

prunifolium. I say "surprised," because what was claimed for it seemed almost incredible, and "pleased," because its effects have been almost magical. I have now used it for about three years and in not a few cases continuously for this length of time, and must say that it has admirably filled a long felt want. It has accomplished much in my hands that medicine never did before. It is not like an addition to our long list of alteratives or tonics, but it has a positive and distinct action peculiar to itself, and belongs to no class of remedies under a general mode of action.

To fully illustrate the class of diseases in which I have used it with success, I will give a few cases in practice. I will first speak of it as an anti-abortive agent. Was called to see Mrs. D., æt. 21, physically strong and well nourished, of medium size, first pregnancy, and in sixth month of gestation. I learned that she had done her washing the day before, and had felt some pain and uneasiness, ever since lifting a boiler of clothing from the stove. Pains had been growing gradually harder ever since, it then being about fourteen hours since pain began, and pains by this time were very hard and regular. Contractions could be plainly felt through the abdominal walls. There had been some discharge of blood for the past four hours. An examination revealed the os sufficiently open to admit the index finger. Membranes were felt unruptured but very tense during pains.

Not having any viburnum prunifolium at hand I administered a large dose of morphia sulph. After two hours I found symptoms the same. I then began giving the viburnum in teaspoonful doses every half hour. Within two more hours pains had nearly stopped, and within three hours pains and hemorrhage had both entirely disappeared. The medicine was continued for several days in smaller doses. The patient went on to normal labor at term. I choose this case for illustration from many others because we have in it the combination of pain, hemorrhage, dilatation of os, and the failure of morphia.

False pains (so-called) have been known to be very troublesome to both doctor and patient. In such cases I have never known viburnum to fail, and will give a case in practice:

Was called to see Mrs. H., æt. 30 years, strong and well-nourished, fourth pregnancy and eighth month. Patient had been suffering for the past three days and nights from a constant bearing down pain, with a frequent desire to micturate and defecate, and had in consequence not been able to rest for this length of time. Prescribed viburnum prunifolium in ten drop doses every half hour until relieved. Permanent relief was obtained within three hours. Medicine however was continued four times a day until labor which was at full term and normal.

I have found viburnum to act very nicely as a corrector in certain cases of sterility of the female. Inasmuch as sterility is often but a symptom of functional derangement of the uterus or ovary, viburnum in so far as it corrects this derangement is beneficial. For example: Mrs. A., æt. 28, large and well-nourished. Had been married eight years and had given birth to two children during first years of married life. Was very desirous of more offspring. Menses were regular but scanty, and lasted but two days, her normal time being five days. An examination revealed nothing but ovarian irritation, of which she had complained ever since birth of last child. Prescribed viburnum prunifolium in half teaspoonful doses four times a day. Next menstruation normal, that is lasting for five days, and with a plentiful flow. Pain in ovarian region was scarcely perceptible. The following menstruation was also normal, and the last, the lady in due time giving birth to a fine child.

I have found the drug useful in most cases of both dysmenorrhœa and metrorrhagia, but as these diseases are too many times but symptoms of an organic lesion or lesions, viburnum must of necessity frequently fall short of a cure, but nevertheless it may constitute the best internal remedy in most cases, when the disease is functional. I now call to mind a case of this kind: Mrs. M., æt. 34, rather poorly nourished, the mother of four children. I was informed by the lady that her menses had begun that day, and that for the past year they had been regular, but lasted from ten to fourteen days, and that the loss of blood was very exhausting, as her appearance indicated. She also informed me that she suffered a great deal of pain during menstruation, this symptom being most marked during the first few days. She was at once put her upon the use of viburnum prunifolium, ten drops every two hours until menses ceased, after which same dose was given four times a day. To my great surprise (for I did not expect an immediate effect) and the lady's gratification, the pain became less almost immediately, and the menses stopped at the end of the sixth day. The medicine was continued for about three months. The next menstruation ended at its proper time, and the pain was quite trivial. She has remained well ever since, and has gained much in flesh. All of the quack female cures had failed in this case, and one good physician had also failed.

I have found viburnum prunifolium very effectual in removing ovarian irritation of long standing: Mrs. M., æt. 28, large and strong, consulted me for an almost constant pain in ovarian region on both sides which was much aggravated at menstrual epoch. Had been in this condition for the past three years—since last confinement. Viburnum was used for ten weeks when she declared herself cured.

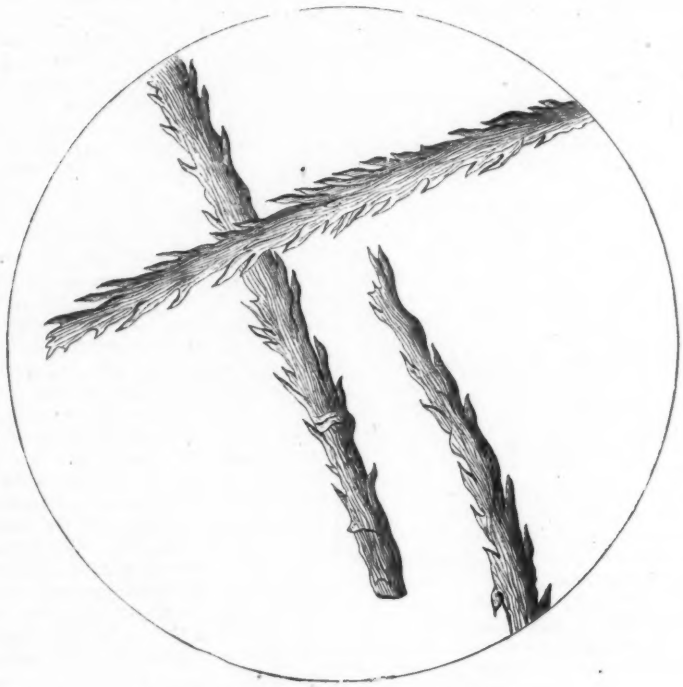
Tincture of Arnica Flowers.

By H. Stieren, M. D., Mason, W. Va.

IN later years I have repeatedly noticed remarks on this tincture causing occasionally a highly inflammatory condition when applied to fresh bruises or wounds from cuts, etc. accompanied with what I would call traumatic fever, for which, considering the often only slight nature of the wound, I was at a fault to find a satisfactory explanation.

For centuries the tincture of arnica flowers has been used in Europe for the purposes mentioned, and has acquired such general popularity, and I say meritoriously, even in this country, that it was seen fit to receive it among the officinal preparations of the U. S. Pharmacopœia. Then the question presents itself: "If it has done good so long, and offered no cause for complaint before, how is it that only recent vituperation has been heard?" Has man changed or has arnica changed?

Predominantly the tincture is applied to fresh or more recent wounds, and we are well aware, that, while it is a gentle irritant, it is also at the same time a beneficial tonic, inviting to quick and healthy cicatrization. If, upon its application, undue inflammation ensue, has that to be ascribed to some pathological action, hitherto unknown, of the drug "arnica," or must we rather look out for some other cause? I am prone to believe, and I speak from actual experience, that the sole and only cause of the inflammation mentioned, merely and exclusively rests in the careless dispensing of the tincture, and I cannot help but draw the closest attention of every practitioner to this circumstance.



FIBRES OF THE DISC FLOWERS OF ARNICA.

The plant belongs to the natural order of "compositæ," with disk-flowers in the center, and ray-flowers at and around the margin of the blossom. The disk-flowers, to a very large extent, consist of numerous, very thin fibres, provided with many, irregular hooks, as represented in accompanying diagram of 60 microscopic diameters. If prepared correctly and carefully filtered, the tincture will and should be absolutely free of these fibres, but unhappily the careless druggist only too often considers it sufficient to merely decant, deeming the filtering process superfluous, and in the application of the tincture whether concentrated or diluted with water, these fibres cannot help but entering and imbedding themselves in the wounds, thereby causing undue irritation and inflammation, and an often long-continued, yet unnecessary suppuration. Superficial and non-scientific preparation of remedies is, or may be, only too often the source of disappointment to the practitioner.

Cascara Sagrada as a Cure for Dysentery.

By Wm. H. Bell, M. D., Logansport, Ind.

I HAVE used cascara sagrada from its first introduction, not only as a laxative *per se*, and a cure for habitual constipation, but very frequently as a remedy for dysentery, in the treatment of which cascara sagrada has always acted in the most satisfactory manner.

Such has been the satisfaction which cascara sagrada has afforded me in the treatment of dysentery, that I am convinced, when its remedial effects in this disease become generally known, it will supplant most other remedies, or else be used as a universal adjuvant.

When there are griping pains through the abdomen with frequent desire to evacuate the bowels, not relieved by the as frequent attempts to have an evacuation, the cascara sagrada seems by its peculiar influence upon the stomach and bowels (probably by altering abnormal peristaltic action), to cause the tenesmus to disappear, and gradually bring on natural evacuations.

As the tonic effects of the cascara sagrada are obtained there is a gradual diminution in the quantity of blood and mucus in the discharges; ultimately they disappear altogether, until in about twenty-four or forty-eight hours all dysenteric symptoms have left, and easy, natural evacuations are obtained.

It can be looked upon as a certain fact "that in the treatment of dysentery results can be obtained from the use of cascara sagrada, either alone or in combination with bismuth subnitrate, or emulsion of turpentine, that far exceed the results obtained from the administration of any other single remedy or com-

bination of remedies heretofore used in the treatment of this disease."

In regard to dose and manner of administration, I find that small tonic or laxative doses (about five to twenty minims of the fluid extract), produce the best effect, my usual intention being not to produce an active catharsis, but rather to increase the tonicity of the stomach and bowels and thus gradually bring on a natural evacuation.

The cases wherein the bismuth subnitrate, or the turpentine would be desirable additions to the cascara sagrada will be readily distinguishable, as the usual indications for the use of those remedies are to be followed.

Reports on New Remedies.
From Private Practice.

Rosin Weed, Sierra Salvia, Manaca, Menthol.

By O. H. Law, M. D., Ortonville, Mich.

I HAVE had occasion to use in my practice, several pounds of the fluid extract of rosin weed in the treatment of spasmodic asthma, and must say that the results, while satisfactory in each case, have in some been quite surprising. In one case in which the attacks during eight years had recurred so frequently and continued so long as to make life a burden, 20 minim doses of the drug three times a day, and continued during ten days, effected great relief after two days, and at the end of the course the patient, in her own words, was "a new woman." I have employed rosin weed in seven cases in all and am highly gratified with the results.

I have given sierra salvia a trial, which, while it has not been sufficiently extensive to justify me in pronouncing it a failure, has, nevertheless, not been attended with such results as to encourage its further use.

August 3. I was called to see Alonzo Steele, æt. 36. Three years previous he had had swelling of joints, etc. He now presented a clear case of rheumatism. As he stated that he had taken all the usual remedies for this affection, I determined to give manaca a trial. When he commenced the drug the joints of both hands and feet were swollen and so tender that he was almost helpless. I ordered him to take five minims every three hours, and increase one drop in each dose daily until the physiological effect was produced. After he had continued in this manner for some time, not having produced any of the peculiar effects of the drug, I gave him drachm doses three times a day. After the second day, marked improvement set in, and continued to convalescence. He has not had any severe attack since, and his general health is also very much improved. He felt some pain and slight swelling in left hand once since, but he immediately commenced the medicine again, and this disappeared. I have never noticed the tightness about the head from the use of the drug often reported.

October 3, 5 P. M. Was called to see Charles Everts. When I arrived I found him in a stooping posture over the back of a chair, and in very great distress with pain in his left side of chest. I could discover no other cause for the trouble than intercostal neuralgia. Here was a good case for menthol, and I had the following prepared:

℞ Menthol, ʒ j.
Alcohol, ʒ j.
Oil of Cinnamon, ♏ xxx. M.

With a hair pencil I applied this freely over the region of the seat of pain. In twenty minutes after the application, I took supper by the side of the patient, he being as well and comfortable as myself.

I keep menthol on hand constantly.

Grindelia Robusta.

By J. G. Skaro, M. D., Rock Dell, Minn.

BY the use of grindelia robusta I have been enabled to relieve and cure many cases of asthma and bronchitis which had been treated by the usual remedies with no good results. In one case of asthma of twenty years' standing I commenced treatment by giving thirty minims of the fluid extract of the drug every three hours, and with instructions to the patient, if he felt the usual hard breathing returning, to use the mixture more frequently until relieved. The result is that the patient has not had the least asthmatic trouble since he commenced the use of this remedy.

Case 2. This patient is 49 years old and has had asthma, with bronchitis, for 21 years. The seizures have been so frequent and so severe during the last two years that he had not been able to obtain scarcely any sleep in the recumbent position. He has used almost every known remedy, but with no decided relief. I commenced treating him by giving:

℞ Fl. ext. grindelia rob., ʒ j.
Fl. ext. yerba santa, ʒ ss.
Simple syrup, ʒ ss.

M. Sig.—Take one teaspoonful of this every three or four hours during the day and oftener at night. He was relieved considerably very soon, and after continuing this for over a week I made him a prescription of:

℞ Fl. ext. grindelia, ʒ j.
Fl. ext. belladonna, ʒ ij.
Iodide of potassium, ʒ ij.
Simple syrup, ʒ j.

M. Sig.—One-half teaspoonful every four hours, and to be increased if necessary. After one week's use of this he was much better—was able to sleep soundly all night and improved rapidly. He has on hand a bottle of the mixture, and whenever he feels the least symptom of hard breathing uses it and entirely controls the asthmatic trouble as well as the bronchitis.

I have also used this remedy in many other cases with success. When after giving it a fair trial alone and it does not entirely relieve them I combine it with iodide of potassium. This combination improves the therapeutic effects of both remedies in the treatment of asthma.

Cascara Sagrada in Dysentery.

By N. W. Cady, M. D., Logansport, Ind.

HERE is the history of one case in which I employed cascara sagrada in dysentery and in which it was used with apparently beneficial results:

J. F., æt. 36, male, married. July 8th, 1881, was attacked with dysentery. Free discharges of mucus

streaked with blood. Temp. 102°; pulse, 108. Much tenesmus and delirium.

Administered tr. opii. gtt. XXX, followed in twenty minutes by pulv. ipecac, gr. XL. This was vomited within fifteen minutes. After an hour repeated the doses in the same manner, and the medicine was retained.

In the morning—eight hours afterward—finding that there had not been any operation, I administ. fl. ext. cascara sagrada, in ten drop doses, every fifteen minutes. After the fourth dose there followed an operation partly natural. Tenesmus and fever diminished. Gave gtt. v. ext. cascara sagrada afterward every half hour, and grs. v. quin. sulph. every two hours, so that by the end of the third day the patient was up and about. Since that time I employ cascara sagrada, in cases of dysentery, in conjunction with the opium ipecac treatment with fairly good results.

Translations.

Treatment of Catarrh of the Respiratory Apparatus.

Rossbach made a series of experiments on cats in order to test various drugs as to their effect on the secretion of mucus, and its prevention. The trachea being laid bare, after all hemorrhage had ceased, could be easily inspected. Carbonate of soda and potash injected into the blood produces at once a paleness of the trachea and a disappearance of further mucous secretions. Acetic acid applied locally to the trachea causes a hyperæmia, and consequently increased secretion. Applications of alum and tannic acid produce a peculiar dry and shining appearance of the mucous membrane and at the same time all secretion ceases. A four-per-cent. solution of silver nitrate brought about similar results in addition to a dullness of the epithelium. As long as air impregnated with oil of turpentine is blown into the trachea the secretion remains at a standstill, but as soon as the atomizer ceases, the secretion begins anew. Turpentine applied locally to the mucous membrane causes an increased secretion. Profuse secretion follows the use of apomorphia, emetine and pilocarpine. Pilocarpine, owing to its action on salivary glands, heart, and sudorific glands, is practically far behind apomorphia. It acts safely, without producing nausea or any interruption in the appetite. Atropia and morphia diminish the secretion. After the employment of atropia the secretion ceases for ½ to 1 hour and returns tardily and slowly. The mucous membrane is, however, quite hyperemic. The narcotic effect of atropia is uncertain. Morphia diminishes the secretion, without entirely destroying it. Experiments with morphia and atropia, and morphia and apomorphia in combination, showed that both medicines develop their activity, and for this reason these combinations should be used in practice.—*Festschrift, Würgburg*, 1882.

Extract of Guachamaca.

This extract was obtained from the bark of the guachamaca tree, which belongs to the apocynac. The extract is very similar to curare, soluble in water, slightly soluble in alcohol, not at all in chloroform and ether.

Ten milligrammes produces in rabbits its entire specific effect. Its action is similar to curare in many respects, differing, however, in one particular in a marked degree, in that it leaves the respiration intact, and like curare it permits the heart to act with undiminished energy.

The extract was used on three patients. Ten milligrammes injected under the skin on the back produced quite an undisturbed sleep, which came on about half an hour after the injection was made, and lasted uninterruptedly for two and a half to three hours.

One patient who suffered with spastic muscular contractions, slept quietly after an insertion of fifteen milligrammes, and during the sleep the muscles remained without contraction, and the circulation and respiration continued in a normal way. After awaking patient felt better and asserted that sleep had been quiet and refreshing. Reflex irritability remained during sleep intact.—Schiffer, *Deut. Med. Wochenschr.*, 1882, No. 28.

Iodoform in Diseases of the Eye.

Iodoform in substance, as powder, and in ointment (0.05: 10.0 cosmolim) can be used in affections of the eye. It is to be specially recommended in injuries and operation wounds of the cornea. In simple conjunctival blenorrhœa, granular conjunctivitis, it is valueless; on the other hand, it is of much benefit in ulcers serpens (saemisch), if it be blown into the conjunctiva in the morning or evening, and then a borated cotton bandage be applied. Of forty-one eyes thus treated, only two were lost, while thirty-eight were discharged with more or less leucoma. Among forty-one eyes treated according to the former method, seven were totally lost.

As soon as the ulcers is clean, and no hypopyon or chemosis is present, the iodoform must be omitted, and in its stead the borated bandage, with a simple astringent, employed. In phlyctenular pannus, iodoform in powder is good; in corneal herpes, it is without effect.—R. Deutschmann, *v. Graefe's Arch.*, xxviii 1, p. 214.

Sulphate of Copper in the Treatment of Diphtheria.

Seydel, of Königsberg, touches diphtheritic patches with a saturated solution of sulphate of copper. Immediately after each such application he washes out the throat and mouth—with head bending over a vessel—with irrigator or nasal douche. These irrigations are kept up every two hours during the attack, and consist in salicylic acid 1:1000 or kali chlor. 20:1000.; 250 grammes of this solution is used at each sitting. Whenever the nose is involved in the disease, the irrigations are to be made through that organ, otherwise only through the mouth. The repetition of the painting with the copper solution is dependent on the progress of the diphtheria. In some cases it is advisable to replace the copper solution with boracic acid in powders, especially when the attack begins to yield.—Seydel, *Berlin Klin. Wochenschr.*, No. 45, 1882.

Adonis Vernalis.

Cervello has succeeded in isolating a glucoside from adonis vernalis, adonidin, which is soluble in alcohol and has bitter taste. The action of adonidin is very

similar to that of digitaline, but more energetic. The minimum dose required to produce a still stand of the heart of the frog, both rana esculenta and rana temporaria is 0.15 milligramme. In rabbits and dogs, in which tracheotomy had been performed and vagi left in tact, after injection of adonidin into the jugular vein, the blood-pressure mounted up in a marked degree. Therefore, according to the author, we have in adonis vernalis the same action as in digitaline, and since there is no cumulative action expressed by the former, it would seem, that, in long continued use the adonis vernalis deserves the preference.—*Arch. f. exp. Pathol., etc.*, xv. p. 235.

Treatment of Diphtheria with Chinoline.

Results claimed by the author for chinolinum purum in the treatment are brilliant. Among a large number of cases reported, partly light, others more or less complicated, only one death occurred, a child 1½ years old. At first chinolin tartaricum was used, but owing to its unpleasant taste it was replaced by chinolin purum. For painting the throat the following formula was used:

℞ Chinolin pur., 5.0.
Aqua dest.
Alcohol, ää 50.0.

For gargling:

℞ Chinolin pur., 1.0.
Aqua dest., 500.0.
Spir. vin., 50.0.
Ol. menth. pip., gtt. ij.

The throat may be painted three to four times daily. Use a fresh brush for each application. After each application a burning pain in the throat is felt, which on gargling with cold water, gives way to a pleasant sensation. The fœtor disappears rapidly, and the membranes begin to dissolve in 12 to 24 hours, while the temperature sinks to the normal. It was further observed that the glands begin to diminish in size after the first application.—O. Seifert. —*Berlin. Klin. Wochenschr.*, 1882, No. 22–24.

The Action of Strychnia on Dilatation of the Heart.

Patients, who undoubtedly suffered with dilatation of the heart, having been percussed and the line of dullness mapped out with nitrate of silver, received strychnia internally.

Result: 1. From 1–2 days after the first dose of strychnia the dilatation begins to diminish, so that in from 5 to 6 days expressed dilatation disappears. 2. If, after the strychnia has been administered for 1 to 2 days, and a diminution in the dilatation has taken place, the drug be removed, a return to the former dilatation is the result.

In order to get the full effect of the strychnia, 2 to 3 mgrm., daily, are sufficient.—Ed. Maragliano, *Centralbl. f. d. Med. Wissenschaften*, No. 41, 1882.

Iodoform in Diphtheria.

Iodoform can best be employed in diphtheria in the preparation recommended by Mackenzie: 2.5 iodoform to a filtered solution of 5.0 bals. tolutanum to 25.0 ether. After having cleaned the mucous membrane of the pharynx by means of absorbent cotton, the above solution is to be applied frequently during the day. Intoxication was observed in no instance, however in no case was over 5.0 iodoform used during one day. In many cases a marked change follows its use and always there is some improvement.—S. Korach, *Deut. Med. Wochenschr.*, 1882, No. 30.

Local Therapeutics in Diseases of the Liver.

According to Mosler and his pupils, large injections of water into the rectum increase the amount of water in the bile and, proportionately lessen the amount of solids. Medicines, as salicylic acid and its salts, iodide of potassium, etc., added to the water, are excreted, in part through the bile. It is therefore to be recommended to apply such remedies after the above manner in icterus, hepatitis, interstitialis and suppurativa.—*Deut. Med. Wochenschr.*, No. 16, 1882.

Globularine and Globularesine.

These two substances were first isolated from globularia alypum by Walz, but little attention was given them, and not until recently were they fully investigated.

Small doses 0.15–0.45 of globularine given daily to the human subject diminish the quantity of urine, lower the frequency of the pulse to 52 beats to the minute, and the temperature to 36.2 C.

Globularesine in doses of 0.10 to 0.20 has a purgative and diuretic effect, while 0.25 to 0.40 act in a most drastic manner.—*Gaz. Hebdom. de Méd. et de Chir.*, 1882, Nos. 25–26.

Treatment of Coryza with Atropia.

Gentilhomme gives in acute catarrh of the nasal mucous membrane atropia sulphate in doses of ½ mgrm. His experience with atropia in this class of cases has been excellent, some cases resembling hay asthma having yielded under its influence that had existed for thirty years.—Gentilhomme, *Union Med. et Scientifique du Nord Est.* No. 5, 1882.

Barometric Pressure and Apoplexy.

A table of seventy-eight cases of apoplexy, all of which occurred in Würtemburg from 1877–1879, showed a sinking of the atmospheric pressure on the day of the apoplectic stroke in fifty-three cases, and a rising in nineteen cases.—Bürger, *Würtemburg Med. Corr. Blatt*, 1882, Nos. 16 and 17.

Meningitis Tuberculosa Cured by Applications of Iodoform.

According to Cösfeld's method, Bauer treated a five year old female child with applications of iodoform in ether, and effected a complete cure thereby. —Bauer, *Deut. Med. Wochenschr.*, 1882, No. 18.

Iodoform in Diabetes Mellitus.

Supported by five cases of diabetes mellitus, which, according to description, were partly light and partly grave, iodoform in doses of 0.05 two to four times daily, is recommended.—J. Molleschott.—*Berlin. Klin. Wochenschr.*, Nos. 17–19, 1882.

The Treatment of Wounds of the Arteries.

Esmarch publishes thirty-one cases of wounds of the arteries treated during war, and in connection with them, gives his views on the subject.

He disapproves of all provisory stoppage of hemorrhage, and is greatly in favor of the elastic garter or rubber tubing, with which it is possible to bandage the wounded limb several times in the same place without incurring the least danger from sepsis or pressure, and at the same time insuring the cessation of all hemorrhage.—E. Esmarch, *Deut. Med. Woch.* 1882, No. 14.

The Preservation of Milk.

Milk allowed to remain at a temperature of 100° in a water bath for two hours, will keep sweet and pure for at least six months. It is important to seal it up before placing it in the water bath. The method known as Becker's, which consists in keeping the bath at 60°, is unsatisfactory, as milk thus treated is preserved for only 48 hours.—Ph. Biebort, *Berlin Klin. Wochen.* 1882, No. 5.

The Effects of Various Medicines on the Secretion of Milk.

Iodide of potassium diminishes, salicylic acid increases the quantity of milk secretion; alcohol, morphine and lead leave the quantity unchanged, while pilocarpine does not increase the secretion. Salicylic acid increases the amount of sugar in the milk, alcohol the fat; lead, morphia and pilocarpine exercise no influence, while, on the other hand, iodide of potassium disturbs the entire milk gland. Alcohol does not go over the milk; lead and salicylic acid only in traces.—M. Stumpf. *Deut. Arch. f. Klin. Med.* xxx, p. 201.

Trichlor-Acetic Acid as a Reagent for Albumen.

To a small quantity of filtered urine in a narrow test tube add a small crystal of trichlor-acetic acid. The acid at the bottom of the glass is gradually dissolved, and at the line of demarcation of the two fluids, a dark zone in the presence of albumen, appears. Normal urine shows no smoky appearance, only when urates abound a light smokiness pervades the entire fluid, but no sharply defined line between the two fluids is discernible. On heating, urates disappear. The test with trichlor-acetic acid is much more sensitive than with nitric or metaphosphoric acid.—A. Raabe, *Zeitschr. f. Anal. Chemie*, xxi, p. 303.

Correspondence.

Sulphate of Quinine Pills.—Comments on the Article on the Subject in the Medical News, Philadelphia, Dec. 16, 1882.

Several communications have been received requesting an expression from us as to our opinion of the analysis of quinine pills, published in the Medical News, of Philadelphia, December 16th, as bearing upon the quality of quinine pills manufactured by us and certain other manufacturers.

For the benefit of those whom this may reach, who may not have seen the report of the analysis referred to, we reproduce herewith the tabulated synopsis of results as claimed by the analyst:

Manufacturer.	Series I.		Series II.		Series III.		Price per 100.
	No.	Grs.	No.	Grs.	No.	Grs.	
1. John Wyeth & Bro., Philadelphia...	I.	2.10					$2 50
2. Bullock & Crenshaw, Philadelphia..	III.	1.99					2.30
3. W. H. Schieffelin & Co., New York.	VII.	1.91	III.	1.91			2.75
4. Parke, Davis & Co., Detroit.....	V.	1.78	IV.	1.77			1.70
5. McKesson & Robbins, New York. ..	II.	1.76	V.	1.76			1.76
6. Keasbey & Mattison, Philadelphia...	VI.	1.71	I.	1.87	II.	1.92	1.90
7. Wm. R. Warner & Co., Philadelphia	IV.	1.61	II.	1.70	I.	1.70	2.75

We can only state with reference to the above that as the matter stands it amounts to an editorial expression condemnatory of the integrity of various manufacturing houses, based upon the assertions of an anonymous chemist. When a house is arraigned on a charge of dishonesty, and such charge is seriously entertained by people familiar with the doings and reputation of said house in the past, it is useless to deal in personal reiterations as to the integrity of the party charged unless backed by positive proof. To produce in our analytical department an array of analyses to combat the statements of this chemist, backed up by the affidavits of our employés in our laboratory as to the honesty of our intentions, would be acceptable only *to those people who would repudiate the charge of the News without question.* For us to attempt to counteract *opinions already formed* by the readers of the News derogatory to our reputation, with such facts as before given, would be absurd. It may be well, however, to consider a few points in the light of circumstantial evidence:

1. Some one has written that everyone has his price; that while the thief of the lower order will risk his liberty for a few dollars, the government contractor or bank official will risk it only for a large amount. Presuming then, for the sake of argument, that all manufacturers of pharmaceuticals are deficient in the moral principles which are supposed to govern the rest of the community, we should endeavor to estimate approximately the amount which would be considered equivalent to a risk of reputation, in an attempt to defraud by giving short weight or adulter-

ated material. In our case we have a large amount of capital invested, say, over four hundred thousand dollars. We carry a large expense annually for the purpose of spreading our reputation and increasing the market for our products, through the employment of traveling representatives and advertising space in the various medical journals of the land. This annual expense will reach a sum of many thousands of dollars—we will say, for the sake of definiteness, within the real figures, the sum of one hundred thousand dollars. According to our estimate, based upon the amount of quinine that we have consumed for the past year and the shortage with which we are charged, namely, one-fifth of a grain on every two-grain pill, or eleven per cent. in weight thereof, the value of the shortage saved would in a year amount to about thirty-five hundred dollars. As the editor of the News calls attention to the fact that quinine, above all other articles in use by manufacturing pharmacists, owing to its high price and extensive consumption, affords a great opportunity to those disposed to take advantage thereof; and as, it may be said further, this article is the only drug employed by us where such fraud could be practiced to any material advantage, we may assume that the charge has been made that we have jeopardized our entire capital, our reputation and the amount which we are spending annually for spreading our reputation, for the paltry sum of $3,500. Whatever may be the opinions of the community as to our integrity, they can hardly charge us with such a foolish business policy as that indicated.

2. It would, perhaps, have been as well if the writer of the article had intimated that the indicated shortage *might* have occurred through the inefficiency of the chemist, or through the inaccuracy of the process employed in making the pills, or through the dishonesty of employés.

3. The name of the chemist who made the analysis has been hidden by both the editor and publisher of the journal in question, and although great pressure has been brought to bear upon these people for information on this point, the approach has been met with a refusal.

4. As the article stands, it is anonymous, or equivalent to an editorial expression, and should be valued in so far as the opinion of a physician on chemical matters is to be considered.

5. A chemist passing judgment upon the products of various manufacturing concerns should be free from all questions as to the scientific ability, his accuracy and his integrity. There is, necessarily, required in the conduct of analyses, where hundredths of a grain are to be calculated, the utmost scientific ability and accuracy. The temptation to collusion with parties interested in the result of the analysis, should a pecuniary amount be involved, is very great, and the name and reputation of the chemist should be an assurance to the community at large that no such suspicion should be entertained against him. In view of the fact, then, that the name of the chemist is not given, the analysis should receive no attention from scientists.

6. Another circumstance, taken in connection with the refusal of the Medical News to reveal the name of their analyist, is certainly not calculated to remove the possibility of his collusion with interested parties. We refer to the fact of the distinctive appearance of the pills as prepared by the different manufacturers named. For instance, John Wyeth & Bro's. "pills" are compressed tablets, without coating of any nature; Bullock & Crenshaw's are plain round sugar-coated; W. H. Schieffelin & Co.'s are round gelatine-coated; Parke, Davis & Co.'s are oval sugar-coated; McKesson & Robbins' are oval gelatine-coated; and Wm. Warner & Co.'s are sugar-coated, with a polished or wax-like surface. We are not aware of the exact peculiarity which gives Keasbey & Mattison's pills a distinctive appearance, but they doubtless have some such mark. The intimation, therefore, of the Medical News that its analyst was ignorant of the manufacturers' names of the several brands analyzed, betokens a condition of mental obtuseness on the part of that gentleman not at all in keeping with what one would have a right to look for in one assuming the responsibilities which he has taken on himself. It must be a very dull individual indeed who, with the most limited experience in handling ready-made pills, cannot distinguish these diffe ent brands. The presumption is that the analyst was not as ignorant as the Medical News would make him, and that he knew right well in each instance the brand he was analyzing.

7. It has been demonstrated, through the opinions of able chemists, that the analysis in question is exceedingly unscientific and inaccurate, and consequently unsatisfactory.

8. The charge of dishonesty is based upon the fact that quinine is an expensive agent, yet the comparison is made in favor of one house through the analysis of a bi-sulphate quinine pill, while the other houses are criticised with regard to the amount of sulphate quinine which their pills contain. According to the statement of one writer upon the subject (American Pharmacist, Dec. 30, 1882, page 729), No. 1 in the report of this analysis, would have stood No. 6 upon the list, had the comparison been properly based upon the amount of sulphate quinine which the pills contain.

9. The implication of dishonest desire on our part to increase our profits must, furthermore, be effectually disposed of by reference to the News' own figures. It will be seen that according to its statement the price of our pills, containing 1.78 grains of quinine, is $1.70 per 100, while that of the manufacturer whom it by inference indicates as the most honest of American manufacturers, is $2.50 per 100 for 2.10 grains of quinine. Had this paragon of honesty adjusted his prices on the same basis that we have ours, his quotations would have been $2.00 instead of $2.50.

10. The foregoing paragraph is based simply on the figures as given by the News and is cited to show its inconsistency. As a matter of fact the prices as quoted by that journal are incorrect. Manufacturers have what are known as list prices and net prices, but the News has made no such distinction, giving the net prices in some instances and the list prices in others. This is, however, but a clearly demonstrable instance of its inaccuracy, and in a matter of the importance attaching to its analysis and the deductions which it draws from such analysis, absolute correctness in every particular is imperative. The case is one in which the application of the rule "*falsus in uno, falsus in omne*," is clearly just.

11. The fact that one manufacturer is rated as putting into his pills one-tenth of a grain of quinine more than the formula calls for, would not seem to indicate that this manufacturer had intentionally given that

amount of overweight, for such action would be contrary to the ordinary business judgment of the most honest manufacturer in existence. This evident inaccuracy in over-weight would support our opinion that it is quite as likely that the shortages reported in the other analysis are due to a similar inaccuracy; or, that instead of stopping with the examination of one sample of No. 1's pills, if the chemist had made a thorough analysis of a number of samples, it is probable that a corresponding average would have been shown.

12. Pills are usually made by manufacturers by the hand machine in use by druggists from time immemorial. If power machinery is used the product is usually more inaccurate than the product of the hand machinery. Taking into consideration the excipient added, the moisture in the pills, the moisture in excess of water of crystallization which the quinine of the market contains in various proportions, it is not to be wondered at, and it can be demonstrated by actual fact, that the pills, not only of manufacturers but of retail druggists, will vary a few hundredths of a grain in certain cases. The assumption on the part of every honest pharmacist or manufacturer is that in the average the pills will assay all that the label claims.

13. It has been charged that the non-action of gelatine and sugar coated pills of quinine in the human economy is due to the shortage of quinine contained therein. Such assumption is manifestly absurd upon its face as the shortage of 11-100 of a grain in each grain, as reported in analysis of our pills, would hardly affect the action of quinine pills if assimilated in the system.

In this connection we will call attention to the well known fact that the alimentary canal in certain conditions of the system refuses to act not only upon such extraneous matters as pills, but also upon the simplest forms of food, and that where such torpidity exists it frequently happens that pills uncoated or coated, freshly made or not freshly made, will pass through the system undissolved.

14. The tendency of this analysis as published and circulated, as it will be, is to afford an advertising medium of the best class to a house who previously had not stood in better reputation for honesty or ability than its competitors. In other words, if the assertions of the writer in the Medical News are to be accepted he has assumed to condemn the integrity of several manufacturers for the benefit of one; for it may be fairly accepted that if any house will deliberately defraud the public in the manner indicated in one instance it will take advantage of every opportunity offered.

15. Our position with regard to frauds in pharmacy must be familiar to the profession of medicine and the drug trade. We have always held that it was unscientific and immoral, ethically, to improperly take advantage of the patent or trade-mark laws of this country for personal benefit, and have not only refused to accept the advantages to be gained by such appropriation but have also opposed the action in others. We have always held also that dishonesty in one form was as bad as in another, and that to defraud the public in the matter of quality or weight of material was as wrong as to commit an open theft.

With these comments upon the circumstantial evidence afforded up to the present hour, we leave the subject either until we can produce conclusive evidence as regards the analysis in question, or by other analysis by disinterested parties in contradiction, or until the community will accept the statement which we now make, that we have not intentionally or to our knowledge taken any action which would tend to produce the results reported in the analysis, but that, on the contrary it has been our endeavor and our instructions to our employés to fulfill our contract with the profession and the public to the letter. For this purpose we have maintained an analytical department at large expense.

PARKE, DAVIS & CO.

DETROIT, Jan. 2, 1883.

"Dr. Chamberlain's Theology."

I have read with amusement the article with the above "caption," but it seems to me that the old rule for the guidance of the physician is easier, viz., "The first duty of the physician is to do no harm, the second to relieve pain, and third and last to cure disease." Often I find myself feeling as my missionary brother expresses himself: "We must turn over a new leaf." But I cannot do it; he cannot do it; but time will and is doing it. I, too, am liberal. Wishing to satisfy myself in regard to the truth of "homœopathy," I purchased a book on "Homœopathic Theory and Practice." I read it carefully. I found that I had been killing off hundreds of my fellow men with calomel and that there was no good in me. I was told to learn the great law, "*similia similibus*," then I should tread in triumph the elysian fields, etc. So I commenced studying the great "Homœopath law of cure." Lesson first: "The great Author of life would not allow disease to invade our frames without giving us at the same time the means to combat it; but how could we know the mode of using unless God revealed it to us?" Now I began to feel that I was again a pilgrim, but on the right track at last. But alas! I find that God did not reveal this great truth, but "by patient investigation and experience for thousands of years the truth in medicine was finally discovered." Oh, why did God allow us poor "regular" barbarians to destroy millions of lives before he gave us the true light? "Humanity had to wade through ages of gross empiricism and merciless dogmatism before the torch of medical truth shone into the dark chambers of the human understanding."

To cure a disease we must "employ a drug whose characteristic effects upon the healthy body shall be similar to the characteristic symptom of the disease." At last I have got started with a "formula that embodies one of the most beautiful and beneficial triumphs of the human reason."

Lesson second: Having now discovered the great formula, I must surmount the difficulties of its practical application. I will pass by the heroic period of Hahnemann and his disciples, who swallowed the crude drug in "sufficient quantities to develop their inherent effect" and come to the "form." First, then, I must take for granted that the simplest form is the best, so I will take one drop of the "mother tincture" and 99 of alcohol and shake by "first carrying the arm up, then down." I will call this the "first attenuation." I will take one drop of this and 99 of alcohol, and this shall be called "second attenuation," etc. I now have my formula for alcoholic solutions. I must find one for dry substances, and so I will take one grain of the original drug and mix

with 99 grains of sugar of milk; grind these together one hour. This I will call my "first trituration," etc.

Lesson third: Now I have my medicines all prepared, how shall I give them? What potency or attenuations shall I use? I refer to my book; it tells me that "the question of potencies has caused a good many disputes in the homœopathic ranks." Too bad! too bad! that so soon I should find wrangling, disputes and division, but I will follow my book which says "the tendency of the age is to "lower attenuations," that some "patients require a few drops of the strong tincture to effect the largest amount of good." But I am in a hurry to get to work, and so go to a homœopathic firm. I ask him what to give a patient that has eructations of wind after meals. He tells me drop doses of the "mother tincture" of nux in a little water after meals. I ask him the difference between his "mother tincture" and my "fluid extract," and he can't find any. After talking with him awhile I find that he has no faith in the "higher potencies," and so I have come back to my book for lesson No. 4. Now I must make up my medicine case. What shall I put in it? I learned in the beginning that the simplest was best, so I will see what drugs cure the most:

I find aconite will cure	225	diseases.
" arsenicum will cure	77	"
" bryonia will cure	47	"
" belladonna will cure	100	"
" mercurius vivus will cure	115	"
" nux vomica will cure	75	"

Now I am even with my missionary brother. I have the whole thing in my vest pocket. Now let me see if I cannot cut this down to advantage, for I find some of these can be used in place of others. At last I have got down to "hard pan." I find there is not much use of anything but aconite and so I will carry a vial of the "mother tincture" in my vest pocket. But I don't want to be called a homœopath, so in my other pocket I will carry my "hypodermic syringe and sol. of morphia." Now I can carry out the original law. With my aconite I will do no harm; with my hypodermic syringe I will relieve pain. I will let "nature's great physician" do all cures. Now who will dare say that I have not got the science of medicine down to a fine thing. Dear brother,

I will place my chest with yours in the corner;
My dear little satchel I will carry no longer;
My vest pocket case I will convert into a locket
And wear it, on my watch chain, outside of my pocket.
So, I say, let those dose and drug who will;
We will keep silent and wish them no ill.
Now, my dear doctor, here endeth my song;
Happy are we, for we cannot be wrong.

G. J. Ross, M. D.

Canterbury, Conn.

Substitutes for Quinine in Malaria.

In the October number of the Gazette is a highly laudatory article on populin in malarial diseases. Let me say to my professional brothers, having lived in a miasmatic district for 23 years and having used populus, dogwood and willow barks, in infusions or decoctions, and, having used every other substitute for quinine during the war, when it was impossible to get quinine under any circumstances, I found none worthy of comparison with quinine. While the persistent use of other drugs, given in large doses, would eventually break up an ague, their action was always unsatisfactory. With quinine, however, a second paroxysm would never occur, when the remedy was given in time. In the C. S. Army, where I was a surgeon, and when it was almost impossible to get supplies of quinine, I used syrups and decoctions and fluid extracts of indigenous barks (poplar, dogwood, willow and wild cherry) in the greatest possible strength. These would answer passably well in some sections, but when we get into the swamps of the Yazoo, Miss., Arkansas, Louisiana, and Alabama, and the wide-spread swamps of other states, nothing but quinine would have any satisfactory effect. Location has much to do with the action of medicines and the tenacity of the hold of the ague. In the hill district of our and other states, and even on creek bottoms, a mustard plaster, a cold douche or bath, yarn strings or flannel bands or strings saturated or not with turpentine, will often cure an intermittent. At other times any pleasurable occupation, frolic or little dissipation will cause the patient to forget for awhile the occurrence of a paroxysm, so slight is its manifestation. But here, where intermittents seldom subside without active treatment, and almost invariably go on from bad to worse with the second or third paroxysm, we almost invariably look for congestive symptoms, chills, fevers, hematuria, pneumonia, hepatitis, etc., either active or passive, with frequent profuse hemorrhages. With such a tendency it is a waste of time and often of life to tamper with the disease or to experiment with remedies. In the northern states other alkaloids of cinchona, as cinchonia, cinchonidia, etc., are found to be efficient in the treatment of intermittent and other fevers, but in this section I have fairly tested them all, but have found them wanting. I had seen colored people here have regular paroxysms of intermittent and remittent fevers, in spite of their taking 20 to 30 and even 60 grains daily of cinchonidia, and I have long since abandoned it and all other substitutes for the quinia salts, and I think this is the case with almost every physician in the swamp districts.

We have often thought that a mule and a negro were the only types of animal life that could stand the influence of miasm in this region; but the last few years experience with charbon proves it is not altogether healthy for even a mule, as almost every year they suffer greatly with considerable loss to the planters, and almost each year more or less miasmatic influences on the negro show he is not proof against them, epidemics of so-called typhoid pneumonia and pernicious fevers often making inroads upon him.

Chas. C. Thornton, M. D.

Chew's Landing, Miss.

A History of Three Grains of Morphia Sulphate.

On the 21st ult., I went to the drug store and called for a drachm of "sulphate of quinia." The proprietor misunderstood and put up "sulphate of morphia." Upon retiring at 11 P. M., I took, for a slight cold, a capsule full, of the largest size, (one that would readily contain five grains of quinia and I estimate three grains of the morphia) together with a glass of ale. I was aroused in the morning at 8:30 by the school bell near by, and upon endeavoring to rise, found myself partially overcome by a general paresis and giddiness, together with almost total loss of vision. Whilst my brain participated in the constitutional malaise, and the intelligence was ab-

nebulated, and I felt quite happy, I also was impressed with a glimmer of consciousness, and that I was poisoned. The muscles of the pharynx were fixed, and I could neither swallow, nor make a sound. Being alone in my apartments, I crawled on my hands and knees to a closet a few yards from the bed, and tried an "eye opener" of brandy. The stimulus of the alcohol inspired the muscles of the throat, and I swallowed an ounce or two and directly after a goblet of cold water. A very free emesis at once followed, which exhausted me extremely, but I managed to return to my bed, and after a brief rest, I concluded to take more water, for the purpose of diluting the contents of my stomach, and possibly vomiting again. But I could not swallow till I resorted to the stimulus of the brandy. In about an hour, my breakfast was sent in and I took a full cup of coffee, which also was soon rejected. I repeated the draughts of cold water at intervals during the day, and in the afternoon my pulse, at about three o'clock, rose to 60, from 40 at 9 A. M., and the pupil was then about normal in size. At 8 P. M. I visited a patient two blocks away and felt much refreshed by the outer air, although my locomotary apparatus was very unsteady. Upon my return I chatted and smoked with some riends, retiring about 10 P. M. I slept profoundly till 9 A. M. next day, and breakfasted upon some coffee and fruit. The day following I was outside most of the time and felt the results of my dissipation only slightly. The night following I did not sleep, but my natural elasticity resumed itself upon rising, and I called myself well as I have been since. My attack of cold surrendered.

The only items of interest to the profession perhaps, in the above history is: 1st. That my example should be avoided always, namely, to order a drug verbally, instead of putting the same in writing. 2nd. That whilst water may be the most available emetic in case of morphine poison, in my case, I could not swallow it till I had stimulated the muscles of deglutition with the alcohol. 3rd. Whilst the brandy would be swallowed, and when taken clear and sole, it was retained, when diluted freely with cold water, was always emitted.

A. COMSTOCK, M. D.

SILVER CLIFF, Col.

Hoang-Nan, Untoward Effects of its Use in a Case of Cancer.

I have been making use of hoang-nan in powder as follows: Mrs. P. DeW., æt. 64, suffered from cancer of right breast for 14 years, during which time she has also been under treatment. When she applied to me I determined to use escharotics and then to secure cicatrization with such other agents as would seem best adapted. But after reading the working bulletin (issued by Parke, Davis & Co.,) on the subject of hoang-nan, I resolved to try that drug. I commenced with one grain doses in capsule, repeating three times daily and gradually increasing the dose until it reached three grains, three times a day. My patient is strong and plethoric in habit and an excessive meat-eater, regardless of my advice to the contrary. On the day she reached the three-grain dose, making nine grains for the day, two hours after she had taken the third dose she was seized with vertigo, dryness of the mouth, cold hands and feet, difficulty of breathing, trismus (which was the most alarming symptom), violent jerking and twitching of the muscles, and opisthotonos. The spasms were accompanied with great pain and were excessively violent. Thirst was intense and there was much difficulty in deglutition.

Heat was applied to the hands and feet and also under each arm. Chloroform was given by inhalation until the jerking ceased and the patient was kept under its influence until there was a relaxation of all the tetanic symptoms. As soon as the patient could swallow, I gave comp. emetic tincture of lobelia, followed with tepid water, *ad libitum*, until free emesis took place, after which she made a proper recovery, and felt no serious effects except weakness.

Under the use of from one to two-grain doses, three times a day, the condition of the breast is improving, and I am satisfied that if the remedy is given in medicinal doses it will prove a valuable agent. My object at this time is, however, to call attention to the danger attendant on the employment of overdoses. Chloroform is the agent to save the patient.

E. E. PERKINS, M. D.

BATTLE GROUND, Tiff Co., Ind.

Diphtheria and the Electrical Storm.

In your editorial on Diphtheria (December number, THERAPEUTIC GAZETTE), you ask, "What was the connection, if any, between the recent electrical storms and the coincident prevalence of the diphtheritic sore throat?"

Diphtheria has been prevailing in this village (of 600 inhabitants) and vicinity for more than a year, and up to the time of the electrical storms. Since that time we have not had a case of diphtheria or sore throat of any kind. Whether the epidemic had about spent its force, I am not prepared to say, but during the last two months it was more fatal than at any other time during the year. I think that the storm had a favorable influence over the disease, and if it has, we would be glad to have an electrical storm every little while. Anything in the world but diphtheria.

E. Y. CHILTON, M. D.

HOWARD LAKE, Minn.

Mangifera Indica.

Allow me to give a little of my experience with mangifera Indica in a case of menorrhagia: Mrs. S., æt. 50 years; menses had been irregular for the last year. When I first called she had been flowing freely for two weeks. I used ordinary remedies, as tr. iron, ergot, lead, opium, and finally tampons with liq. perchlor. iron, from each of which I secured temporary relief, but no permanent results. Finally I gave the mangifera Indica (P., D. & Co.'s), 15 to 20 drops every two hours. The relief was complete and permanent after two or three doses. Though this is a very fair test, it is but one case, and I give it hoping to induce my professional brethren to give the drug a fair trial and report their experience in the interest of humanity.

S. A. BUTTERFIELD, M. D.

INDIANAPOLIS, Ind.

The Therapeutic Gazette

WILLIAM BRODIE, M. D., Editor.

ASSOCIATE EDITORS:

J. J. MULHERON, M. D. and A. B. LYONS, M. D.

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The Pharmacopœia of 1880.

I.—CHANGES IN THE STRENGTH OF OFFICINAL PREPARATIONS.

THE difficult and delicate task of readjusting the pharmacopœial code to the needs and the demands of two great professions has been at last finished, and the results are in the hands of most of our readers. Many will have already given it that critical study to which its importance entitles it at the hands of every physician, but many also are so engrossed with the peculiar work which must ever have the first claim upon their time, that this has been impossible. For the benefit especially of this class, we wish to call attention to some of the more important changes that have been made by the revisers of the pharmacopœia.

Before considering specific changes, it may be well to inquire why changes should have been made at all, to perplex both physician and pharmacist. The reason is sufficiently obvious to one who takes a broad view of the matter. It is becoming more and more important that there shall be essential agreement between the pharmacopœial standards of all civilized countries. In America, more than in any other country, it is desirable that medical men who have received their training in divers lands should in medicine speak one tongue. Formerly this end was reached in a literal sense in the adoption of the Latin language as that of prescriptions. But it is of less consequence what we call an article by name, than that when we use apparently synonymous terms we mean really the same thing. If Englishmen, Frenchmen, Germans and Americans write tinctura opii each with a signification peculiar to his nationality, it were better that each kept to his vernacular tongue. There would be no occasion for one initiated into the mysteries of pharmacy to confound laudanum, teinture d'opium, and einfache opium-tinktur.

The world is slowly learning, however, that time is too precious to squander it in memorizing such subtle distinctions, and there is besides always the danger that things so similar may be confounded, possibly with fatal results.

If the distinctions are really trivial no harm indeed will accrue if they are disregarded, but it is better in that case that the distinction itself be obliterated. But if there is really an important difference, it is all the more necessary that steps be taken to remove a fruitful source of dangerous mistakes.

But, one says, why should we make all the concessions? Is not the American standard as good as that of the English or the German? One needs but to compare them to see that this is no place to indulge in national pride. The English standards naturally are those we have hitherto been inclined to adopt, and they are somewhat more uniform and scientific than ours have been, but to the unprejudiced observer, France and Germany lead the world in these respects, and we cannot do better than to approximate as closely as possible to their methods and standards.

The changes which tend towards this unification we are predisposed to commend and adopt; if any of an opposite character are proposed we must deprecate them unless some very strong independent defence can be made of them.

In the light of these principles let us glance at some of the most important changes that have actually been made in the strength of officinal preparations.

We naturally turn first of all to that prince among narcotics, opium, and with the keener interest because of the perplexities that have hitherto made its pharmacy the especial dread of the young medical student about to come up for examination.

"One thing at any rate we are sure of," the student will say, "the average full dose of opium is one grain." Alas even that confidence is based on a delusion. Opium has not a fixed chemical composition; its dose must depend upon the amount of morphine it contains, and that varies between six and twenty per cent. How then shall a physician prescribe this remedy?

Here appears the value of an authoritative standard like that of the pharmacopœia. "Opium shall contain ten per cent. of its weight of morphine." So we learned in school, and so ordained the pharmacopœia of 1870, and so say still most of the authorities. But as a matter of fact, the opium of our market is generally stronger than this, and the pharmacopœia has not required that it should not be so, hence much of the opium actually dispensed contains a much larger proportion of morphine.

In view of this fact the committee on revision have adopted a new and higher standard strength for opium. We now read that powdered opium dried at 185° F. must contain not less than twelve, nor more than sixteen per cent. of morphine, as determined by a certain given process of assay. We have to remark on this, first, that the range of variation permitted is altogether too wide, amounting to 33⅓ per cent. of the lower standard, and second, that the abrupt change from a standard of ten per cent. to one of—on an average—fourteen per cent. in the case of so powerful and so important a drug as opium, is altogether unprecedented and unwarrantable.

The physician is now in a dilemma, indeed. Here is a remedy from which he can get certain definite and extremely desirable effects in certain doses, but

which in larger or in smaller doses may work only mischief. If his prescription goes to A. he may feel sure that the old-fashioned preparation will be dispensed. A. probably has not seen the new pharmacopœia, and if he has, has not modified the strength of his opium preparations to bring them into harmony with the new standard. But if it should go to B., who is a wide-awake sort of fellow, and conscientious withal, he will certainly get opium of the strength of the new pharmacopœia. He may specify on his prescription the morphia strength desired, or "pharmacopœia of 1870," but such an expedient brings back all the old confusion and inconvenience.

Clearly the revisers have, in this instance at least, quite overstepped the limit of admissible changes. The change has been made, however, and whether we approve it or not, we must at all events study it carefully to see what influence it is to have on the doses of officinal preparations.

Powdered opium is made the basis of all officinal preparations of the drug, but two other kinds of opium are described. One is the familiar gum opium, which we are told must not contain in its moist condition less than nine per cent. of morphine. It would have been better to specify that the opium dried at 100° C. should not contain less than 12 per cent. of morphine, and why not fix a maximum as well as a minimum limit?

A new variety of opium, too, is introduced—denarcotized opium—and this has, besides other desirable properties, the peculiarity that it shall contain a fixed proportion, viz., 14 per cent. of morphine. If the proportion had been 12 per cent. we should have been better pleased, unless indeed, the old simple standard of 10 per cent. had been permitted to remain; otherwise we are disposed to give this stranger a hospitable welcome. It is evident from the adoption of a 14 per cent. standard for this preparation that the revisers of the pharmacopœia expected that powdered opium would have this high average. In comparing, therefore, the preparations of the old pharmacopœia with those of the new we must assume that the opium of the latter is theoretically about forty per cent. stronger than that of the former.

In the liquid preparations of opium we are warned to look for changes more considerable than in those of other powerful remedies, but made deliberately as the less of two great evils. Hitherto, owing to the needless differences in strength in preparations which are identical in the general range of their uses, it has been necessary for the physician to learn separately the doses of each, with a liability always, after all, to confound them one with another in the hurry of prescribing.

	Weight in grains corresponding to one grain of opium.		Minims containing one grain of opium.		Minims containing 1 grain opium, standard of 1870.
	U. S. P. 1870.	U. S. P. 1880.	U. S. P. 1870.	U. S. P. 1880.	
Acetum Opii.....	6.13	10.	6.4	9.8	7.
Tinctura Opii.....	11.11	10.	12.8	11.1	7.93
Tr. Opii Deod.....	11.6	10.	12.8	10.6	7.57
Tr. Opii Acetat....	10.	10.	10.		
Tr. Opii Camph....	244.	250.	272.	273.	195.
Vinum Opii.....	7.7	10.	8.	10.3	7.36

The accompanying table shows at a glance the proportion of opium contained in each of the officinal preparations of the old and new pharmacopœias.

The second column of this table exhibits indeed a beautiful simplicity, but unfortunately it is one that has no practical interest for the physician. Prescriptions are still written, and destined for a long time to come to be written in measured quantities in the case of all liquids. Doses are of necessity measured—crudely enough, no doubt—at the bedside, and the physician cannot burden his mind unnecessarily with the relation of volume to weight and perform mentally intricate mathematical calculations besides in writing the simplest prescriptions. How many minims of this preparation represent one grain of opium? that is the one fact he wishes to bear in his memory.

Columns three and four of the table therefore are the ones he will study, and if he has been expecting uniformity in doses from the new codex, he is doomed to disappointment. It is true the variations from a uniform standard of ten minims as representing one grain of the drug are not so great as those he has hitherto been obliged to learn, but still differences exist to perplex him, and of sufficient magnitude to be really of consequence.

It appears after all that it is the pharmacist and not the physician whose interest has been consulted in the simplification of these formulæ. We cannot help thinking that this is a mistake, for it is the physician and not the pharmacist who has occasion constantly to perform calculations involving as a factor the strength of medicinal preparations.

Column five shows the value of the new preparations, if made strictly according to the new standard in strength in terms of an opium of the old ten per cent. standard. It will be seen that eight minims of laudanum is equivalent nearly to the familiar thirteen of former days.

The revisers of the pharmacopœia have fallen into a singular delusion on one point. In many instances they have modified the strength of powerful preparations, making them somewhat weaker than formerly, and consider that in doing so they reduce the possible danger to patients as the result of the change. If the preparation is weaker than heretofore, the patient will be in less danger of getting an overdose. But it's a poor rule that does not work both ways. How, if the physician prescribe according to the new low standard, and the pharmacist supply a preparation made of full strength by the good old formula? The fallacy pointed out, we may soften the edge of the criticism by owning that in most cases the changes are not so great as to make any material difference in doses. The instance of opium and its preparations is the most flagrant of all in the present revision, and after all has been said, the danger is not so great even in this case as one might fear. The opium of the market is in fact stronger than the minimum of the old standard, and pharmacists will still for the most part use the opium they buy without assaying it, as they have heretofore done, and so the new preparations may in general be stated broadly to contain each in ten minims the equivalent of about one grain of opium—the quality of the latter subject

still to great variations, not uninfluenced by the honesty of the pharmacist.

There is space now only to allude to a few more of the important changes that have been made in the strength of some of the important tinctures.

The tincture of aconite root has been reduced in strength more than 15 per cent., merely to secure a factitious uniformity in the class of tinctures, the drug forming after all a striking exception to the rule, and still affording the same opportunity as formerly for fatal mistakes by confusion with preparations of other pharmacopœias bearing the same name.

Tincture of cannabis indica is now to be made from the crude drug, instead of from the solid extract, but its strength is reduced 50 per cent. It is brought into accord with the preparation of the French codex, but is no longer, as formerly, essentially identical with the British and the German preparation.

Tincture of nux vomica shows a step in advance in scientific pharmacy, in that it is made to contain a certain definite quantity of extractive. If the spirit used is of the strength prescribed, this will secure uniformity in this preparation much more certainly than the usual plan of exhausting a given quantity of the crude drug. According to the estimate given by the revising committee, however, the strength is reduced, possibly as much as 40 per cent., a change quite unwarranted in a preparation so powerful, and so much used.

We have not space to comment further at this time; we are aware that the work of revising the national standard is one involving many perplexing problems and it is not strange if some of them have not been solved to our individual satisfaction. For the enthusiasm and the diligence with which the men who have been entrusted with this thankless task have carried it through, we have nothing but praise. We may make minor criticisms, but we regard the result of all this labor with satisfaction and pride, as challenging favorable comparison with that which has been done in the same line in scientific France and Germany.

Diphtheria.

IN THE December number of the GAZETTE we stated to our readers that "the pendulum has been swinging between views holding this disease to be primarily a local affection, and those which regard the membrane as but the local manifestation of a constitutional disease." We personally hold to the latter opinion and believe it to be a grave mistake to adopt the former. The appearance of the exudation is a result and not a cause, and is only ocular evidence that the disease exists, giving warning that immediate and prompt measures should be taken to eradicate it from the blood. Like its twin sister, scarlet fever, diphtheria manifests itself in certain seasons of the year and is governed as to its severity and origin by atmospheric influences.

Some years ago diphtheria appeared in this city following a continued run of typhoid fever, of which it seemed to take the place, for since that time genuine typhoid fever has been a rare disease, whereas diphtheria has been more or less prevalent. Holding to the opinion of its constitutional origin, our success in its treatment has strengthened us in that view. To this end we apply the following:

First. So soon as we have evidence of the disease we thoroughly evacuate the primæ viæ either by a mercurial cathartic or castor oil, as in our judgment will best suit the patient.

Second. Having accomplished this to our satisfaction, we apply to the neck a broad piece of flannel, upon which a coating of lard is spread, and this is again covered with fine table salt. This is to be kept closely confined to the throat until an irritation is produced, and to be still continued. Very salt pork will answer the same purpose. Internally we give to the child (of say five years of age), a teaspoonful of the following prescription:

℞ Tr. ferri mur. ʒ j.
Potas. chlor., ʒ j.
Aquæ.
Syrupi āā ℥ j.
M

every two hours. And every four hours give gr. jss of Dover's powder to quiet the nervous irritability and produce rest. The patient should be kept in an airy room of a comfortable temperature, to be kept as quiet as possible, only to be disturbed by the giving of food, medicine and the wants of patient. Should the urinary secretion be deficient (and we notice it commonly is), ten to fifteen drops of spir. nit. dulc. in a little sweetened water ever four or five hours will relieve that difficulty and prove a great adjuvant to a favorable result. Nourishing food should be given at not too long intervals. Should the stomach decline to receive it or the act of swallowing be difficult and painful, the same should be given by enemata, to which a couple of grains of quinine should be added. We allow our patients to have all the water at ordinary temperature they desire, and if necessary, sometimes add a few drops of the best brandy procurable. In the early stages we believe in letting the throat alone. When the deposit has ceased to spread and its separation commenced a stimulating expectorant can be given, such as the syrup scillæ co., tincture opii camph., aa ℥ j, tinct. sang., ʒ ij, of which the dose is a teaspoonful every two or three hours, according to age. The great principle in medication is to strengthen the system and to assist nature in throwing off the disease. If, in spite of all that can be done in this way, the larynx becomes involved, there is no chance of recovery. Tracheotomy is worse than useless and the end is only a question of time.

Is diphtheria contagious? We believe it is not to an otherwise healthy person residing in a locality where the disease does not exist. Persons living in localities where the disease prevails are affected by the prevailing atmospheric agencies and the constitutional dyscrasia resulting therefrom, and if they have not the vigor to resist these they succumb. Immediate contact with those affected may hasten its development which otherwise might have passed by No harm can arise from proper precaution being taken in this respect.

Prevention of Small-Pox.

The comparative immunity from small-pox thus far during the present winter is without doubt due to the energetic measures which have been in operation, both by private individuals and corporate bodies, since last spring. The manner in which what

threatened to be a very widespread epidemic was hemmed in and stamped out is one of those facts which cannot be removed by volumes of sophistical argumentation. The thorough system of inspection, isolation and vaccination of the past summer will stand, in the magnificence of its results, as an enduring monument to the effectiveness of an advanced sanitary science. Inspection, isolation and vaccination, these three, but the greatest of these is vaccination. It is because of the recognition of this fact that the means for propagating effective vaccine virus have developed into the perfection which now generally characterizes them. Among the establishments for such propagation, the National Vaccine Establishment of Washington, D. C., Dr. Ralph Walsh, director, is especially deserving of mention. While there are other reliable propagators in this country, there are some whose products have been very unsatisfactory. The physician is inspired with a sense of confidence and security in employing virus from an establishment of acknowledged integrity and capability, and certainly the endorsements which the National Vaccine Establishment has received are guarantees of the fulfillment of these conditions to no ordinary degree of completeness: Philip S. Wales, M. D., Surgeon-General, U. S. A.; J. B. Hamilton, Surgeon-General Marine Hospital Service; Dr. P. H. Bailhache, Inspector from National Board of Health; Dr. E. M. Gallaudet, President Columbia Institution for the Deaf and Dumb; P. J. Murphy, M. D., Surgeon in charge of Columbia Hospital; J. H. Baxter, M. D., Chief Medical Purveyor, U. S. A.; Charles Smart, M. D., Secretary National Board of Health; Smith Townsend, M. D., Health Officer, Washington, D. C.; N. S. Lincoln, M. D., Attending Physician for the Columbia Institution. We think we may congratulate the profession and the people on the establishment of an institution of this nature worthy of such an endorsement.

In connection with this subject of the prevention of small-pox, we note a recent circular issued by Supervising Surgeon-General M. H. S., John B. Hamilton. It is of special interest to the people of the West and Northwest, and is calculated to correct an evil of which they have been cognizant:

"1. The boards of health of several cities along the western rivers have complained to this office that their cities were infected with small-pox by reason of seamen taken from steamboats. The records of this office show that 143 cases of small-pox were taken from ninety-five vessels during last season.

"2. In order to prevent the steamboats from becoming carriers of infection, it is respectfully requested that you cause your crew to be examined by a medical officer of the Marine Hospital Service with reference to the necessity for vaccination. Such officer is authorized to perform this service for vessels subject to the payment of hospital-dues, without expense to the vessel, under paragraphs 63 and 64 of the Regulations; and they have subsequently been ordered to vaccinate crews from vessels without expense, upon application.

"3. It is also requested that infected bedding be burnt in the furnace instead of thrown into the river, and that where bunks are furnished they be fumigated with the fumes of burning sulphur once each month, whether there be sickness on board or not, and invariably fumigated when a sick man is removed from the vessel."

A Great Invention!

A PETITION for letters patent has been filed at Washington for what is in a certain sense one of the greatest inventions of the age, occupying in the domain of medicine a similar relation to that occupied by the Keely motor in mechanics. The transcendent genius from which it is evolved finds its seat in the brain of one Dr. S. G. Ginner, of Bradford, Pa. It is really a wonderful contrivance and bids fair to revolutionize therapeutics. It is a contrivance for preparing and applying medicated electricity. It is constructed with two cells connected respectively with a series of batteries, including the galvanic, faradaic and static currents, which will extract from a watery solution of a drug or chemical the active principle of the said drug or chemical, which active principle will at the same time become amalgamated with the electric fluid, and may in this manner be passed through the human body producing the usual effect of the drug or chemical employed!! With this electrical device in a family, the stomach, rectum, subcutaneous areolar tissue and the various avenues through which we have been wont to administer medicines will be entirely superfluous to such an end. A logical application of this apparatus would, indeed, render the stomach and alimentary tract mere ornamental appendages to the human form divine, for any of the purposes to which these organs have been put from time immemorial and counter to which the memory of even the anthropoid progenitors does not run.

The inventor claims that he can introduce into the circulatory system opium, or morphine, and produce instant sleep. That he can introduce the active principles of epsom salts, with actual results to follow in less than thirty seconds. That he can sit in his office and hold conversation with a patient in the adjoining county by means of the telephone, and that he can then, by a system of wire works, place him under medical treatment by introducing into him his medicated electric fluid, or current. That he can also saturate the electric fluid with the elements of disease contained in the cow-pox virus and thus vaccinate people at any distance—either 1 or 50 miles distant, and perhaps at 1,000 miles distant!!!

If the active principle of medicinal vegetables can be more promptly and efficiently applied by this means is it unreasonable to believe that the soluble nutritive principles of vegetables may not be similarly applied? We think not, and we feel that we are on the eve of a new dispensation.

The honest reader will exclaim that the patent office will never become a party to imposing such a device on a long suffering public. Honest reader, the ways of the patent office are mysterious and past finding out. Don't you wager any of your wealth that letters patent will not be issued in response to the petition.

Alleged Short Weight Quinine Pills.

WE would direct especial attention to the communication as it appears elsewhere in our present issue, from Messrs. Parke, Davis & Co., on the implied charge made against them, in common with five of the other leading manufacturing pharmacists of this country, in an analysis of two-grain quinine pills, published by the Medical News of Philadelphia.

We have been much interested both in this communication and others which have been received from other firms whose good name has been called in question. A charge of the kind noted cannot be otherwise than serious, and is, moreover, of such a nature as must interest the entire medical profession. There is a discrepancy between the analyses as they have been subsequently made by other chemists and the chemist of the Medical News—a discrepancy sufficiently marked to cause an arrest of judgment on the part of those receiving a copy of the enlarged edition of the issue of our contemporary containing the report of the analysis in question. The facts bearing on this analysis and set forth in Messrs. P., D. & Co.'s communication are, moreover, sufficient in themselves, and without any reference to this discrepancy, to vitiate it as evidence before an impartial jury.

We cannot but deprecate the fact that our esteemed contemporary, usually so fair in its treatment of questions of professional interest, should have suffered itself to become even remotely instrumental in furthering the interests of a single manufacturer at the expense of reputations which have been long established and which it will require more than a report from an anonymous chemist to affect.

The next act in this interesting drama will, doubtless be the strewing of the country thick as autumnal leaves with reprints of the analysis referred to, or with copies of the journal itself which contains it. These will be made to do yeoman's service as certificates to bolster up a character which differs from that of the firms at whose expense the bolstering will be sought to be effected, in that a record of it may be unearthed in the musty archives of this nation. The profession will, however, not have completely effaced from its memory certain facts which suggest the proverb of glass houses and stones, and will hesitate long before it, on the unsupported declaration of an anonymous analyst, transfers its confidence from firms on whose escutcheons there is no trace of blot made either by sophistication or adulteration, or by commercial trickery or duplicity. It will fix its own estimate on all artificial means adopted to secure a confidence which can only be developed by regular process of growth, and which cannot like Jonah's gourd spring up in a night. The means referred to and set in motion to supercede the natural method are too artificial, and those interested in its construction may find that they have overlooked a power of recoil, whose capacity for execution they did not fully take into account.

It is, moreover, always as suspicious a circumstance to find a "reformed" man solicitous for a certificate of good character as it is to find the dog which has once had a taste of mutton endeavoring to ingratiate himself with the shepherd. The prudent, while they will do nothing to discourage efforts at reform, will not be caught napping.

Journalistic Changes and Improvements.

THE new year opens with a few changes in the matter of medical journals. The Michigan Medical News, after five very prosperous years of existence, decided upon a change through which the design which it sought to embody may be more fully elaborated. It felt an embarrassment from its name; having obtained a national reputation and circulation its localized name hampered it. It, therefore, united with its youthful sister, the Detroit Clinic, and as a result of the union we have the birth of The Medical Age, the progenitors both dying immediately on the completion of the delivery. It is a vigorous child, revealing in its lineaments those decided lines which characterized its parents. Mr. George S. Davis, our publisher, will look after its bodily needs while Dr. Mulheron, with whom Drs. McGraw Lyster, Walker and La Ferté are associated, will attend to its intellectual side.

Our sprightly contemporary, the Louisville Medical News, has also taken a step forward. Whereas it was a 12 pp. journal it is now a 16 pp. Under the management of Drs. L. P. Yandell and L. S. McMurtry it enters the new year under excellent auspices. May it live long and prosper.

The Annals of Anatomy and Surgery, the only journal in the English language devoted to surgery, and to anatomy as related to surgery, enters the fourth year of its existence with an air of great satisfaction in the position it has achieved, and there are none who will for a moment dispute its right to feel good. The Annals is a journal of the kind that the profession owes it to itself and to its reputation to sustain, for the failure of such a publication as it would be a serious reflection on the surgeons, particularly, of this country. It is able and dignified in its utterances. Features are promised for the new year which will still further enhance its value.

The Medical Record, of New York, takes a longer stride on entering the new year than of the many previous steps which it has taken since its establishment. It has increased the size of its pages and its mechanical execution is faultless. It promises, as a feature of the new volume, a gathering anew of the more recent views concerning the pathology and treatment of many of the commoner diseases. This is a very valuable move and will be particularly appreciated by the medical practitioners of longer standing. The Medical Record is evidently alive to the necessities of the hour, and it will not be found a laggard in the race. It is an enviable monument to the scholastic ability, and especial editorial fitness of its veteran editor, Dr. George F. Shrady, to whose efforts its success is due.

The New York Medical Journal, long one of our most valued exchanges, even though it came but once a month, has caught the spirit of the times, and starts out on its new volume as a weekly. The first number of the new deal is an admirable one and contains internal evidence of the ability of its managers to cope with the best.

The American Medical weekly has taken the place of the American Medical Bi-weekly. Our friend Gaillard is evidently up and doing and in the change which he has made he has given his journal quite a metropolitan character. We wish him only his deserts when we wish him a large share of prosperity.

The Canadian Journal of the Medical Sciences, doubtless realizing the fact that time is money, has adopted a much more abbreviated cognomen, to wit, The Canadian Practitioner. We heartily endorse the change and congratulate our contemporary on the vigor which characterizes its new departure.

The New Orleans Medical and Surgical Journal opens the new year with a new corps of editors. Dr. S. M. Bemis, under whose management the journal attained its enviable celebrity, retires, and his first lieutenant, Dr. W. H. Watkins, takes the helm. His assistants are Drs. D. C. Holloway, John Godfrey, F. Loeber, L. F. Salomon. This infusion of new blood will ensure the continued high standard of our excellent contemporary.

For nearly ten years our old friend, The Sanitarian, has appeared regularly every month and probably would have continued to do so, but unfortunately, or rather fortunately, its editor and publisher became connected with the National Board of Health and in the course of his duties came west. He thereby discovered a vast region of country populated by an extensive class of people well up in the arts and sciences, possessed of wealth and well educated. Having lived in Brooklyn and seeing the world over the great city of New York, he necessarily had no conception of the world beyond, and so the Sanitarian continued on a steady old monthly with little variation from year to year until the event above referred to. It is now a weekly of 16 pages, abundance of advertisements and enclosed in a neat cover and well printed on excellent paper. It has its own field to plow and we extend to it our best wishes.

The American Journal of Obstetrics, published by Messrs. Wm. Wood & Co., becomes a monthly, giving 112 pp. in each issue. Dr. Faul F. Mundé remains in the management, and Dr. George B. Fowler is his associate. As European collaborators we have Drs. Robert Barnes, of London, Carl Schrœder, of Berlin, and P. Budin, of Paris—names which all stand high in gynæcological matters. With such a corps, nothing but a first-class journal is expected, and the first number for the new year amply justifies the expectation.

Our indefatigable friend, Dr. C. Henri Leonard, who has been laid on the shelf for over a year, by very severe illness, is about again, and inaugurates the new year by another exhibition of his old-time characteristic energy, his "Illustrated" being enlarged from a small octavo to a large quarto, and being otherwise improved. We congratulate our brother on his convalescence and wish for his speedy full restoration to health.

We welcome to our exchange the Journal de Medecine de Paris, the editor-in-chief of which is Dr. A. Lutand. The Journal occupies a prominent position even among its French contemporaries, and more than this need not be said in its praise. It is high-toned and progressive, and is, furthermore, practical, which is something which cannot be said of all of our European exchanges. We hope to be able to reproduce from the Journal some of its reports on the investigation of the newer drugs.

Cundurango in Germany.

IT will strike the profession of this country as somewhat singular, and there is a striking suggestiveness in the fact, that cundurango, a drug originally introduced here, and since become a synonym for fraud and imposition in matters pertaining to the materia medica, should have received such recognition by the profession of Germany as to have secured for it a place in the new pharmacopœia recently issued in that country. It will be remembered that cundurango was introduced by Dr. Bliss, of Washington, D. C., as a remedy for cancer. The claims made for it were so very extravagant that a prejudice was aroused against it at the outset and reports of its failure in the hands of a few who gave it a trial, combined to bring it into very bad odor. Doubtless, also, certainly questionable methods adopted to turn it to the pecuniary advantage of its introducer contributed very materially to bring the new drug into disrepute.

The lesson which is deducible from this change in the fortunes of cundurango is so plain that he who runs may read it: a drug, like other things animate as well as inanimate, should be judged on its merits—like a tub, it should stand on its own bottom. It is a regretable fact that cundurango is not the only drug which has suffered from causes entirely extraneous. A class of physicians will not believe that a drug which has had the misfortune of having been well spoken of by an old woman, an illiterate native or a physician, even, on whose "regularity" there rests the slightest suspicion, can have aught in itself to commend it. They echo the cry which was heard centuries ago: "Can anything good come out of Nazareth?" We do not sanction a ready running after the new, but it seems to us that until our materia medica becomes perfect no claim made for a drug should be suffered to exist without being put to the crucial test. There are truths even in superstitions, and the fact that a claim is made for a drug challenges and should ensure for it the attention of the medical profession. It may happen, as in the case of the drug under consideration, that the result of a thorough trial may not fully endorse original claims, but it may still discover enough of value to make the article a valuable one. Cundurango has not been found to be a specific for cancer but has been found to be an alterative of pronounced value.

What is Wrong with our Emmenagogues?

DOUBTLESS this query has commenced to hang like a nightmare on our readerss. In the answers which have in each instance accompanied it it seems to us the main point of the query has been quite overlooked. It seems to be the general sentiment, as expressed by those who have replied to Dr. Miller's question, that the doctor in propounding it has displayed an insufficient acquaintance with the pathological condition sought to be relieved by means of emmenagogues; that, in short, he has made the error of holding amenorrhœa as a disease rather than as a symptom. We cannot, in justice to Dr. Miller, sympathize with any such criticism. The doctor, doubtless, deemed it entirely superfluous to discuss this side of the question. His query should be confined in its application strictly to its letter. Any other application of it must defeat the object in view in making it. As a matter of course when amenorrhœa is clearly a symptom the treatment must be preceded by a search for its cause, the removal of which can be the only rational procedure. The agent which is instrumental in thus removing the cause is not, however, properly an emmenagogue. The jumping tooth keeps the victim awake night after night and tortures him with pain. The removal of the tooth by the dentist's forceps is followed by refreshing sleep and an agreeable sense of well being. No one would, however, because of this, call the forceps either an anodyne or a soporific. The ad-

ministration of digitalis under certain conditions is followed by an increased flow of urine, but digitalis is not, because of this, a diuretic. In order to justify the classification of a drug under any particular head it must be its inherent property to produce the effect implied by such classification. Incidental effects are not a proper basis. Under such a conception the question "what is wrong with our emmenagogues?" is a very pertinent one. Our list of drugs which directly stimulate the uterine function is a short one, and is much in need of lengthening and strengthening.

The Therapeutic Gazette for 1883.

OUR readers will observe that a change has been made in the editorial management of the THERAPEUTIC GAZETTE. We have associated with us Dr. J. J. Mulheron as editor, a gentlemen who has given much time to the study of the materia medica, and has been for the past three years the Professor of Materia Medica, Institutes of Medicine and Therapeutics, in the Michigan College of Medicine, and whose writings have been before our readers for some time past. We have also added the name of Dr. A. B. Lyon, a gentleman who has given chemistry, as particularly applied to the elucidation of the properties and constituents of the vegetable kingdom for therapeutic purposes especial study.

We have made these additions in the interest of our readers and the profession of medicine. Our purpose is to make the THERAPEUTIC GAZETTE an authority in all that pertains to new remedial agents. We ask of all who are interested in this department of medicine to co-operate with us by their correspondence and, by furnishing for analyzation material having a popular value, assist us in cultivating this extensive field.

Our publisher has done his share towards improving the GAZETTE by giving it a new dress and by increasing its size by four pages. The increase of size will give us more room for selections from our exchanges and thus enhance the value of the journal. This department was during the past year somewhat encroached upon by the amount of original matter with which we were favored.

Erratum.

IN Dr. Stieren's article "What is Wrong with our Emmenagogues?" on p. 449 of our December issue the "ʒ" instead of the "ʒ" should have been employed after cremor tartar in the prescription containing that salt.

Abstracts.

The Proper use of Ergot in Obstetrics.

At the seventh annual meeting of the American Gynæcological Society held at Boston on September 20th, Dr. Joseph Taber Johnson, of Washington, D. C., presented a paper on this subject, which has been published, together with the discussion on it, in the Boston Medical and Surgical Journal. He enumerated some of the many indications which from time to time since the introduction of this drug into obstetric practice by Dr. Stearns had been believed to exist for its use, as to hasten slow pains in first and second stage, to bring on labor, for threatened abortion, placenta prævia, etc. The action of the drug on the uterus was described as a persistent tonic contraction, finally becoming tetanic. All the fibres are equally contracted, whereas in a normal labor there is a repeated shortening and lengthening of the long fibres, while the circular ones are relaxed over the presenting part. If by chance the child is expelled under ergot it is because, everything being in readiness, the fundal muscles have contracted a little the first. The contraction under ergot lasts for hours, and the child is compressed equally on all sides. Not only is the placental circulation, which ought to go on in the intervals of the pains, checked, but a strong pressure is brought to bear on the head and chest of the child, which by its continuousness may be fatal. Again, it is the intermittency of the contractions which prepares the passages for the transit of the child, and if they are not so prepared various ill effects, from a minute fistula to an extensive sphacelus, may result,—these results being due more to continuity of pressure than to length of time. Moreover, the sudden expulsion of the fœtus through unrelaxed passages may cause all sorts of rupture from that of the uterus to that of the perinæum. Ergot is uncertain in its action, and may affect any part of the uterus solely, sometimes causing the hour-glass constriction.

To illustrate the large number of still-births ascribable to this agency, three cases were detailed, in each of which ergot was exhibited to dilate the cervix on the failure of uterine pains, from sixteen to twenty hours after the beginning of labor. In each case the child was known to have been alive at the beginning of labor, but all were still-born and one had a bright red band, evidently due to constriction, about the head.

Various authorities were cited among those who first sounded the note of alarm regarding ergot. In 1850 the Academy of Medicine, of Paris, appointed a commission, who reported the danger from compression and narcotism. In accordance with this report, three years later the Academy voted against its use, except in miscarriage, hæmorrhage, etc. Subsequently Chapman showed that an "ergot-pain" was fatal to half the children if continued an hour. Thanks to present medical instruction the administration of ergot to dilate the os is rare among educated physicians, but the large number of still-births reported by midwives, and the fact that they all carry their ergot bottle in their pocket, shows that much damage is done by this class of accoucheurs. The writer thought that a few indictments for infanticide might have a salutary effect on these persons. The use of ergot was discussed and condemned in abortion with retained placenta, when it acted mischievously by locking up the secundines. As a routine treatment against post-partum hæmorrhage it is unreliable, taking from fifteen to thirty minutes to act; moreover, it often causes vomiting, and if the patient is weakened by hæmorrhage it is not absorbed even if retained. Subcutaneous injection is the only method of administration which is reliable. In threatened abortion and accidental hæmorrhage ergot is useless. With primiparæ it is dangerous. If dilatation is complete in a multipara, the soft parts relaxed, there is no obstruction to the birth, and the attendant is sure that a few more pains are all that is wanted, he may give it cautiously, with the understanding that if the birth does not occur in a half hour the forceps shall be used. With this rare exception ergot

should never be employed unless the uterus be empty. Viewing the use of ergot as a whole, the reader thought the race would be better off without it altogether.

Dr. Reynolds in opening the discussion said that the abuse of ergot was due to disregard of instruction rather than to lack of it. He agreed with the reader as to his general rule not to use ergot till the uterus was empty, but in exceptional cases might employ it in the second stage there being no obstruction to a speedy delivery, and observing all the precautions which the essayist had laid down. In such cases small doses (five to ten drops) repeated often would soon show whether the action was to be favorable. The speaker alluded to the change in practice since a few years ago when a practitioner in a town near Boston said that himself and one other man did all the obstetric work of the town, one delivering with ergot the other with forceps. For subcutaneous use the speaker preferred Bonjean's ergot, administered in equal parts of glycerine and water, by deep injection. As a routine treatment he gave ergot whenever an anæsthetic had been used, his experience being that under such circumstances the tendency to post-partum hæmorrhage was increased. For the first two or three hours after ergot the after-pains are increased, but after that they are less severe.

Dr. Barker recognized the importance of having positive rules, but the difficulty of laying them down in the case of ergot. He would never use it in the first stage, never to induce contractions, never except in vertex presentations. In perhaps one case in one thousand, in a second stage with circumstances similar to those described by the previous speakers, there being only a lack of force to complete parturition, he employed it. These cases, of which he had had perhaps three or four, were those where labor was retarded by an emotional condition which caused oversensitiveness to pain, so that the patient could not make use of the accessory muscles to help herself. Hence the pains were fruitless and so ceased. Here he would give a few whiffs of chloroform to overcome the morbid sensibility, and follow with two or three doses of ergot. If the birth was delayed more than a half hour, would use forceps. Dr. Barker disagreed with the reader as to the effect on after-pains, believing that ergot diminished them. In part it was for that object that he used ergot after the birth of the child, and not to prevent hæmorrhage or to expel the placenta. After pains are simply labor pains, and there will be none if there is nothing to expel, that is, if fixed contraction of the uterus is secured. The most important use of ergot is to promote involution, when, for any reason, this is retarded. It is valuable, conjoined with tonics and stimulants, in a "slow getting up."

The president asked the question whether it was the experience of any that an anæsthetic increased the action of ergot, as it did sometimes of opium, so that from having had no effect it suddenly manifested itself by precipitate activity.

This question was not answered. The discussion here for a time went outside the subject strictly before the society.

Dr. Barker denied the assertion of a previous speaker that anæsthetics increased the liability to post-partum hæmorrhage. He used them constantly whenever the pains were at all severe, and had employed them thus in several thousand instances without having had a single case of post-partum hæmorrhage. On the contrary, they prevent that accident, which is usually due to exhaustion of nerve power. Some women who had suffered from severe flooding as a regular thing after previous labors, when treated in this way had no hæmorrhage, and were saved by chloroform the great exhaustion which they had heretofore experienced.

Dr. Howard, of Baltimore, said he never used ergot to increase the expulsive powers under any circumstances. He thought that forceps were then to be resorted to. In the course of his remarks he expressed strong dissent from what Dr. Barker had said about the effect of chloroform on hæmorrhage. He never would use an anæsthetic without following it by ergot. He depended greatly upon ergot when he had reason to fear post-partum hæmorrhage. Squibb's extract, five grains to ten minims of water, injected deeply, had never in his experience caused an abscess, and produced its effect in one quarter the time that it would if taken by the stomach. When the uterus is more "frangible than dilatable," he found the best effects from chloral. One advantage not alluded to of ergot was the lessening of the tendency to puerperal fever by driving all the blood out of the uterus and preventing any stagnating discharges.

Dr. Trask, of Astoria, said he now used forceps in many cases where years ago he employed ergot. The latter is uncertain in its action. He administers a full dose (one drachm) just as the head is expelled, not to remove the placenta, which he expects to get out of the way before the ergot acts. He used this routine treatment on account of two or three cases which had happened when in multiparæ relaxation had come on in from thirty to forty-five minutes after birth, with abdominal distention and flooding.

As to the use of anæsthetics the speaker also differed from Dr. Barker. He so distrusted chloroform that he was resolved never to use it again. He, had last winter, a case where it caused uterine inertia, requiring the application of forceps, and followed by alarming hæmorrhage.

Dr. Engelmann, of St. Louis, emphasized the evils of ergot in the hands of midwives and ignorant practitioners. He said that ergot was to the midwife what forceps were to the skilled obstetrician. Some more harmless weapon ought to be put into their hands, as quinia, ipecac, or even Dover's powder. For himself the speaker always carried ergot, rarely used it, and then only when the uterus was empty. When subinvolution was feared there were safer agencies, as external pressure and hot-water injections. The latter should be always made antiseptic.

Book Reviews and Notices.

Electricity in Medicine and Surgery. By Geo C. Pitzer, M. D., Professor of Theory and Practice of Medicine in the American Medical College of St. Louis; Clinical Lecturer at the City Hospital, St. Louis; editor of the American Medical Journal. First edition. St. Louis, Mo.

The object of this work is to furnish the medical

student with a book containing the principal facts embraced by the subject of electricity and electro-therapeutics.

The author proceeds to define electricity and the various forms of electrical apparatus, and how to use the latter; the class of cases to whom it is applicable; the different diseases, with specific instructions when and how to apply the agency. The work is completed by reports of cases—medical and surgical—in which electricity has proved both curative and palliative. Its object is evidently intended to supply a want felt by the country practitioner, in which we think the writer has admirably succeeded.

Copies can be procured from the author.

The Hospital Treatment of Diseases of the Heart and Lungs: with over 350 formulæ and prescriptions, as exemplified in the hospitals of New York city—Bellevue, New York, Charity, Roosevelt, Presbyterian, St. Francis', St. Lukes, German, Mt. Sinai—in the service of Drs. Alonzo Clark, Austin Flint, Alfred L. Loomis, E. G. Janeway, W. H. Thomson, W. H. Draper, F. Delafield, A. Jacobi, J. R. Leaming, A. H. Smith, Beverly Robinson, J. Lewis Smith, G. G. Wheelock, J. H. Ripley, F. H. Bosworth, A. C. Post, A. A. Smith, etc. By Charles H. Goodwin, M. D. 1883. Price $1.50.

New York: C. H. Goodwin, M. D., 245 W. Fifty Third st.

We know of no book similar to this. Claiming nothing original, it simply recites the *modus operandi* as directed by the several gentlemen in charge of the various hospitals in the city of New York, while in the management of diseases of the lungs and heart. The author has done a good work in collecting and presenting the various views of the different gentlemen as recited on the title page. We have no doubt that medical men visiting New York and her hospitals will be much advantaged by reading this book, as by so doing they will know beforehand the treatment of the diseases mentioned by the author. For instance, take pneumonia, the treatment of which in Bellevue by the different physicians is as various as the number of gentlemen engaged. No two are alike. While some endorse bleeding, they each do so at different stages. One gives stimulants and tonics, another has no established plan of treatment, believing that nutritive diet is all that is necessary, and depends evidently on the *vis natura*; whisky and milk are thoroughly advised by others. The other hospitals, except the small ones, where one or two heads manage the treatment, have the same variety of practice. In pulmonary phthisis, the same variety of advice exists; one sends the patient to a warm climate, another to a northern climate, and the third advises staying at home. "You pays your money and you takes your choice." It is unnecessary to go over the list further. Dr. Goodwin has done a good service to the profession and the medical student in giving them an insight to the fact that doctors disagree in the treatment of the same kind of disease, under the same auspices and in the same hospital. Much is said of hospitals for educational purposes; they have their uses in teaching diagnosis and prognosis, the appearance of disease, and the *modus operandi* of death; but hospital treatment is one thing, and outdoor treatment of the class who do not need hospitals, is another. We well remember over thirty years ago, that Drs. Parker and Clark said that poverty required one plan of treatment for a disease which occurring in the opposite class required opposite treatment. A hospital experience has taught us the correctness of the information. As the author states, the information he gives the reader will be valuable to him as he travels the wards of the hospitals, yet we cannot find that he advises that the knowledge obtained of the treatment should be carried into private practice. In this we think he is sensible.

We notice that the fluid extract of quebracho is used for dyspnœa, often affording marked relief, also for other purposes, and yet it cannot be found in the pharmacopœia just issued, and which is supposed to be up to the times. The old adage, "consistency, thou art a jewel," is in this well exemplified. We advise our readers to procure a copy of this book. It is well worth the price and will give them many valuable suggestions.

True Science is the Key to Wise Practice.—The Diseases of the Liver, With or Without Jaundice.—With the Special Application of Physiological Chemistry to their Diagnosis and Treatment. By George Hardy, M. D., F. R. S., Fellow of the Royal College of Physicians; Corresponding Member of the Academy of Sciences of Bavaria; of the Academy of Medicine, Madrid, and of several continental medical societies; formerly President of the Parisian Medical Society; Physician to University College Hospital and Professor in University College, London. Illustrated by colored plates and wood engravings. Price, cloth, $5.00; leather, $6.00.

Philadelphia: P. Blakiston, Son & Co.
Detroit: John MacFarlane.

In the year 1863 the author published a monograph entitled "Jaundice, Its Pathology and Treatment, with the Special Application of Physiological Chemistry to the Detection and Treatment of Diseases of the Liver and Pancreas." Since that time the author has been pursuing the study of the subject and adding to his experience the results of which he has embodied in the work before us. A brief resumé will give our readers an idea of its contents and the manner in which the subject is presented.

Chapter 1. Gives introductory general remarks on the study of liver diseases, in which the value of physiological chemistry in the diagnosis and treatment of hepatic diseases are pointed out. 2. Discusses the chemistry, physics and physiology of the liver. 3. Etiology of jaundice; giving tables showing conditions under which jaundice is met with, theories of different kinds of jaundice and their causes. 4. General remarks on the signs and symptoms of hepatic disease. 5. General remarks on treatment of hepatic disease. 6, 7, 8 and 9. Diseases, biliousness, intra uterine, congenital and hereditary jaundice; jaundice as a result of enervation and jaundice from hepatic congestion and inflammation. 10. Jaundice caused by disease-germs; 100 pages are devoted to this new view. 11. Biliary concretions. 12. Hints on the differential diagnosis of colics. 13. Catarrhal jaundice. 14. Jaundice from poisons. 15. From permanat obstruction. 16. The chemistry of the excretions as an aid to diagnosis and treatment. 17. Abscesses of the liver, topical and temperate. 18. Cancer of the Liver. 19. Syphilitic disease of the liver. 20. Hydrated form of hepatic disease. 21. Cystic disease of the liver. 22. Benign degeneration of hepatic parenchyma. 23. Traumatic affections of the liver. 24. Hepatic ascites and dropsy. 25. Liver spots; xanthoma, xanthelasma or vitiligoidea. 26. Affections of the gall-bladder. 27. General hints to aid in the diagnosis and prognosis of diseases of the liver.

A full index completes the work of over 750 pages.

We are informed by the publisher that this edition is published simultaneously with the London edition

by special arrangement between the author and themselves, and therefore is the only authorized edition, and contains all the text and original illustrations.

The work cannot be but of great value to every physician and student who has any desire to know all about the liver whether in health or disease. The application of physiological chemistry to the diagnosis and treatment is a new feature, and greatly adds to its value.

Vick's Floral Guide for 1883.

This annual is issued in an elegant style. Evidently the young Vicks are chips of the old block, so easy have they fallen in the footsteps of their departed father.

Send to James Vick, Rochester, N. Y., for a copy, from which you will learn all about the prices of seeds and the beautiful flowers described therein.

Report of the Trustees of the Arkansas State Lunatic Asylum, Little Rock, January, 1883.

Judging from the report this institution is having a fair stand and its president, Dr. P. O. Hooker, will accept our best wishes and thanks for the report secured.

Analysis of Eight Thousand Cases of Skin Diseases. By L. Duncan Bulkley, A. M., M. D., Attending Physician for Skin and Venereal Diseases at the New York Hospital, etc. Reprint from the Archives of Dermatology, Vol. VIII., No. IV. Oct., 1882.

Gonorrhœal Ophthalmia, Its Complications and Results; Iridectomy for Artificial Pupil. A Clinical Lecture at the Michigan College of Medicine by C. J. Lundy, M D., Professor of Diseases of the Eye, Ear and Throat. Reprint from Michigan Medical News, February 25, 1882.

Treasury Department, Marine Hospital Service.—Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the fiscal year 1882.

Annual Reports, City of Detroit, 1881,

Journal of the Common Council, City of Detroit, 1881

Journal of the Senate of the State of Michigan and of the House of Representatives. Extra session, 1882.

The Illustrated Quarterly of Medicine and Surgery.—No. 4, Vol. 1. Edited by George Henry Fox and Fred. Sturges, M. D's. Eight dollars per annum.
E. B. Treat, No. 757 Broadway, New York City.

Every number is an improvement on its predecessor.

Contribution to Surgical Gynecology.—By Edward W. Jenks, M. D., LL. D., Chicago, Ill., Fellow of the Obstetrical Society of London and of the American Gynecological Society; corresponding member of the G. S. of Boston, and H. M. of the State Medical Society of Maine, Ohio and Michigan, etc. Reprint from the Transactions of the Illinois State Medical Society; Vol. xxxii; being the report of the chairman of the committee on gynecology, and read at Quincy, May 17, 1882.

Report of the Committee appointed by the Sanitary Convention at Ann Arbor, Mich., March 1, 1882, on the sanitary condition of the hospitals of the University of Michigan at Ann Arbor. Reprint from annual report of State Board of Health.

The Opium Habit; Its Successful Treatment by the Avena Sativa.—A paper read before the New York State Medical Society, Feb. 9th, 1882. By E. H. M. Sell, A. M., M. D., Fellow of the American Academy of Medicine, of the New York Academy of Medicine, Member of the American Medical Association, etc. Reprint from the Medical Gazette, April 22, 1882.

A Contribution to the Report of the Committee on Medical Legislation.—By E. Ingalls, M. D., read before the Illinois State Medical Society, at Quincy, May, 1882. Reprint from the Chicago Medical Journal and Examiner.

Report of Conjoint Session of North Carolina Board of Health held in Concord, May 10th, 1882.

Preventive Medicine.—An essay by W. P. Beal, M. D., of Greensborough.

On Causes of Consumption.—An Etiological, Statistical report on Tubercular Pulmonary Phthisis. By Edward Playter, M. D., Author of Elimentary Physiology and Hygiene, and Editor of the Sanitary Journal, Oct., 1882. Toronto, Ont.

Treasury Department, Marine Hospital Service.—Preliminary Report on the Yellow Fever Epidemic of 1882 in the State of Texas. John B. Hamilton, M. D., Supervising Surgeon General.

The American Settler's Guide.—A Popular Exposition of the Public Land System of the United States of America. By Henry N. Copp, Edition of Copp's Land Laws, etc. Third Edition. Washington, D. C.

Annual Report of the National Board of Health for the year 1882. Jas. L. Cabell, M. D., President, and Chas. Smart, Major and Surgeon, U. S. A., Secretary.

Some Thoughts on Phthisis.—With special reference to the value of Laryngeal Symptoms in Diagnosis. By M. F. Coombs, M. D., Louisville, Ky.

Opening Address of the Medico-Chirurgical College of Philadelphia. By Geo. P. Oliver, A. M., M. D., Prof. of Surgery and President of the College. Delivered at the College, April 4th, 1881, at the opening exercises of the first session of the College.

Laws Requiring Medical Men to Report Deaths and Cases of Infectious Diseases to the Public Authorities. Paper read before the American Public Health Association, at Indianapolis, Oct. 19, 1882. By O. W. Wight, M. D., Health Officer of Detroit.

Therapeutic Progress.

The Medical News Commission on the Composition of Pharmaceutical Preparations.—*Quinine Pills.*—It is of the highest importance to the profession and to the public to know if the pharmaceutical preparations which are prescribed and purchased are what they are represented to be both in quality and quantity; for it is very evident to the most casual observer that neither temptation nor opportunity is lacking to those who may be willing to adulterate their preparations and dispense them in short measure.

Of all the drugs in the Pharmacopœia, quinine is probably one of the most largely used and at the same time one of the most expensive. As there is an immense demand for it everywhere, and as there are considerable difficulties in the way of both physicians and patients ascertaining the precise amount of quinine in a pill, owing to the presence of excipients and coatings, and equally great difficulties in the way of detecting adulterations, it is readily seen that the manufacture of quinine pills offers a most attractive field to any pharmaceutist who is disposed to take advantage of his opportunities.

The leading manufacturing pharmaceutists have for some years found it profitable to make for the trade, on a very large scale, the pills which are in common use, and the retail apothecaries, as a rule, keep these pills in stock and dispense them as a matter of convenience, annd because they can be sold at a lower price than those which are made on a small scale by hand.

With the view of ascertaining how well the public is served by the leading manufacturing pharmaceutists The Medical News instituted an investigation as to the purity and weight of the pills made by them, and

two-grain sulphate of quinine pills were, for obvious reasons, selected for the test.

In the middle of October, the Medical News purchased in unbroken packages from seven of the largest manufacturers, or from their agents, bottles, each containing by actual count 100 two-grain sulphate of quinine pills. The pills were then put in new bottles, numbered respectively 1, 2, 3, 4, 5, 6 and 7, and placed in the hands of an expert analytical chemist, to ascertain the amount of the alkaloid contained in each pill and its purity, without his having any knowledge, indication, or clue as to who were the manufacturers of the different specimens. To eliminate all possible errors, a second series of analysis, and, where these showed any discrepancies, a third series were made under the above conditions, the numbers, however, being varied in each series, for evident reasons.

METHODS OF ANALYSIS.

The analysis was conducted by the following method: 20 pills were dissolved in distilled water, by the aid of a little dilute sulphuric acid, and, in the case of the sugar-coated pills, the solution filtered, in order to remove starchy matter, etc., and the filter thoroughly washed with water. The resulting solution was then super-saturated with ammonia water, and the precipitated alkaloid dissolved by agitation with successive portions of pure ether until, after the separation of the ether, the remaining aqueous liquid no longer gave any reaction for an alkaloid with potassio-mercuric iodide; thus affording evidence of its complete abstraction. The ethereal solution was first allowed to evaporate spontaneously in a weighed glass capsule, then dried at 100°C. (212°Fah.), and finally dried at 125°C. (257°Fah.), until the weight remained constant.

Seven specimens of pills were thus examined, with the following results:

SERIES I.

No. I. (compressed). Two-grain bisulphate of quinine pills. Average weight of each pill, 2.07 grains. Average amount of anhydrous quinine, $C_{20}H_{24}N_2O_2$, obtained from each pill 1.24 grains; corresponding to crystallized bisulphate of quinine, $(C_{20}H_{24}N_2O_2)_2H_2SO_4+7H_2O$, 2.10 grains.*

No. II. (gelatin-coated). Two-grain sulphate of quinine pills. Average weight of each pill, including coating, 3.48 grains. Average amount of anhydrous quinine, $C_{20}H_{24}N_2O_2$, obtained from each pill, 1.31 grain; corresponding to crystallized sulphate of quinine, $(C_{20}H_{24}N_2O_2)_2H_2SO_4+7H_2O$, 1.76 grain.

No. III. (sugar-coated). Two-grain sulphate of quinine pills. Average weight of each pill, including coating, 5.14 grains. Average amount of anhydrous quinine, $C_{20}H_{24}N_2O_2$, obtained from each pill, 1.48 grain; corresponding to crystallized sulphate of quinine, $(C_{20}H_{24}N_2O_2)_2H_2SO_4+7H_2O$, 1.99 grain.

No. IV. (sugar-coated). Two-grain sulphate of quinine pills. Average weight of each pill, including coating, 4.69 grains. Average amount of anhydrous quinine, $C_{20}H_{24}N_2O_2$, obtained from each pill, 1.199 grain; corresponding to crystallized sulphate of quinine, $(C_{20}H_{24}N_2O_2)_2H_2SO_4+7H_2O$, 1.61 grain.

No. V. (sugar-coated). Two-grain sulphate of quinine pills. Average weight of each pill, including coating, 5.16 grains. Average amount of anhydrous quinine, $C_{20}H_{24}N_2O_2$, obtained from each pill, 1.323 grain; corresponding to crystallized sulphate of quinine, $(C_{20}H_{24}N_2O_2)_2H_2SO_4+7H_2O$, 1.78 grain.

No. VI. (sugar-coated). Two-grain sulphate of quinine pills. Average weight of each pill, including coating, 4.34 grains. Average amount of anhydrous quinine, $C_{20}H_{24}N_2O_2$, obtained from each pill, 1.269 grain; corresponding to crystallized sulphate of quinine, $(C_{20}H_{24}N_2O_2)_2H_2SO_4+7H_2O$, 1.71 grain.

No. VII. (gelatin-coated). Two-grain sulphate of quinine pills. Average weight of each pill, including coating, 3.05 grains. Average amount of anhydrous quinine, $C_{20}H_{24}N_2O_2$, obtained from each pill, 1.42 grain; corresponding to crystallized sulphate of quinine, $(C_{20}H_{24}N_2O_2)_2H_2SO_4+7H_2O$, 1.91 grain.

All the specimens were found to be free from the associate alkaloids of quinine, viz., quinidine, cinchonine, and cinchonidine, and to respond to the official tests of sulphate of quinine for identity and purity.

Owing to the deficiency in weight of five of the above examined specimens, a second analysis was made of newly purchased samples, which were similarly numbered 1, 2, 3, 4 and 5; the numbers, however, not corresponding to those attached to the first set of specimens submitted. The analysis was performed in the manner above described, and afforded the following results:

SERIES II.

No. I. (sugar-coated). Two-grain sulphate of quinine pills. Average amount of anhydrous quinine, $C_{20}H_{24}N_2O_2$, obtained from each pill, 1.39 grain; corresponding to crystallized sulphate of quinine, $(C_{20}H_{24}N_2O_2)_2H_2SO_4+7H_2O$, 1.87 grain.

No. II. (sugar-coated). Two-grain sulphate of quinine pills. Average amount of anhydrous quinine, $C_{20}H_{24}N_2O_2$, obtained from each pill, 1.26 grain; corresponding to crystallized sulphate of quinine, $(C_{20}H_{24}N_2O_2)_2H_2SO_4+7H_2O$, 1.70 grain.

No. III. (gelatin-coated). Two-grain sulphate of quinine pills. Average amount of anhydrous quinine, $C_{20}H_{24}N_2O_2$, obtained from each pill, 1.424 grain; corresponding to crystallized sulphate of quinine, $(C_{20}H_{24}N_2O_2)_2H_2SO_4+7H_2O$, 1.91 grain.

No. IV. (sugar-coated). Two-grain sulphate of quinine pills. Average amount of anhydrous quinine, $C_{20}H_{24}N_2O_2$, obtained from each pill, 1.318 grain; corresponding to crystallized sulphate of quinine, $(C_{20}H_{24}N_2O_2)_2H_2SO_4+7H_2O$, 1.77 grain.

No. V. (gelatin-coated). Two-grain sulphate of quinine pills. Average amount of anhydrous quinine, $C_{20}H_{24}N_2O_2$, obtained from each pill, 1.308 grain; corresponding to crystallized sulphate of quinine, $(C_{20}H_{24}N_2O_2)_2H_2SO_4+7H_2O$, 1.76 grain.

SERIES III.

No. I. (sugar-coated). Two-grain sulphate of quinine pills. Average amount of anhydrous quinine, $C_{20}H_{24}N_2O_2$, obtained from each pill, 1.26 grain; corresponding to crystallized sulphate of quinine, $(C_{20}H_{24}N_2O_2)_2H_2SO_4+7H_2O$, 1.70 grain.

No. II. (sugar-coated). Two-grain sulphate of quinine pills. Average amount of anhydrous quinine, $C_{20}H_{24}N_2O_2$, obtained from each pill, 1.42 grain; corresponding to crystallized sulphate of quinine, $(C_{20}H_{24}N_2O_2)_2H_2SO_4+7H_2O$, 1.92 grain..

TABULAR STATEMENT OF THE RESULTS.

For convenience of comparison the results are arranged in tabular form.

Manufacturer.	Series I.		Series II.		Series III.	
	No.	Grs.	No.	Grs.	No.	Grs.
John Wyeth & Bro., Philadelphia.	I.	2.10				
McKesson & Robbins, New York.	II.	1.76	V.	1.76		
Bullock & Crenshaw, Philadelphia.	III.	1.99				
Wm. R. Warner & Co., Philadelphia.	IV.	1.61	II.	1.70	I.	1.70
Parke, Davis & Co., Detroit.	V.	1.78	IV.	1.77		
Keasbey & Mattison, Philadelphia.	VI.	1.71	I.	1.87	II.	1.92
W.H.Schieffelin & Co., New York.	VII.	1.91	III.	1.91		

RELATION OF THE PRICE OF QUININE PILLS TO THE AMOUNT OF QUININE THEY CONTAIN.

As a matter of collateral interest, it is worth while to consider the varying price at which the two-grain pills are furnished, and the relation of the price to the amount of quinine they contain. This is shown

*The small excess of quinine obtained in this instance is doubtless due to the employment of a slightly effloresced salt.

in the accompanying table, in which are given the current retail prices which were paid by the Medical News for the specimens purchased for the first series of analyses:

Manufacturer.	Quinine per pill.	Price per 100.
John Wyeth & Bro.... ..	2.10 grains.	$2.50
Bullock & Krenshaw.. ..	1.99 "	2.30
W. H. Schieffelin & Co...	1.91 "	2.75
Parke, Davis & Co.....	1.78 "	1.70
McKesson & Robbins ...	1.76 "	1.76
Keasbey & Mattison.....	1.71 "	1.90
Wm. R. Warner & Co....	1.61 "	2.75

The range we found to be from $1.70 (the lowest) to $2.75 (the highest) per hundred—a variation of 60 per cent.; and there is no constant relation between the price of the pills and the quantity of quinine they contain.

THE GENERAL RESULTS OF THIS INVESTIGATION.

From the foregoing facts we learn:

I. That the quinine pills of five out of seven of our leading manufacturers have not in them the amount of sulphate of quinine which they are represented to contain.

II. That there is a great variation in the price at which the pills can be purchased.

III. That the price bears no relation to the amount of quinine really contained in the pills.—*Philadelphia Medical News, December* 16, 1881.

Capsicum a Type of the Oresthetics.—I have written on this subject because I believe our knowledge of pathology is already in advance of our knowledge of therapeutics.

The leading men in our profession, especially the Germans, write hundreds of pages on the microscopic anatomy of diseases, and only a few paragraphs on the treatment. I honor them for the light they have thrown on the nature of our maladies, and hope they may yet do as much for their relief.

After a physician has satisfied himself as to the diagnosis, he sometimes finds it difficult to determine what is best to do. And this difficulty is increased if the attack is violent and the disease is running its course rapidly. For if he adopts the wrong treatment, so much time may be lost as to cost the life of his patient.

Familiarity with the use of a remedy may almost be said to be essential to its proper administration. So much is this the case, that a very learned member of our profession says, that when he is called in consultation (if he can conscientiously), he always recommends some medicine which the attending physician is in the habit of using; for he knows that if he advises a remedy which the physician is not familiar with, if it is used at all, it will not be given in a way to produce its best effects. Especially is this familiarity necessary in the use of medicines capable of producing strong impressions or fatal effects, such as veratrum viride, nux vomica, aconite and many others.

How easy it is for a physician who is in the habit of using a particular medicine to know when his patient has a sufficient quantity, and also to know whether the symptoms which he sees are the effects of the medicine, or the manifestations of the disease. As this, in a serious disorder, is of vital importance to the patient, ignorance of it is almost criminal in the physician. This knowledge is only to be acquired by close, careful, analytical study of the powers, operations and effects of the remedies used. This cannot be done well if a medicine is given in combination with other active remedies, but it must be given alone, and its effects carefully noted, otherwise its operations will be so modified or obscured as to afford but little, if any, useful information.

The nature and history of capsicum are too well known to require a description. Its active principle resides in capsicine, a semi-solid, possessing all the medicinal powers of the plant in a concentrated form.

The first disease that I will mention, for which capsicum is used, is a common cold, or catarrh of the Schneiderian, faucial or bronchial mucous membrane, or all of these together, as in influenza. It is used both locally and constitutionally, in the form of hot infusion, given *ad libitum*. In the wandering pains which women have in the pelvis, and more particularly in the uterus, I have found decided benefit and sometimes entire relief from a free use of a strong, hot infusion of capsicum. It is recommended as a cure for hemorrhoids and for chronic atonic uterine hemorrhage, given in either disease in two or three grain doses three or four times daily.

Recently it has been used with marked success in delirium tremens. In this disease it is given in very large doses, from twenty to eighty grains, either alone or in combination with other medicines. It has also been used with benefit in some forms of paralysis.

The above will show the scope and extent of the use of this remedy sufficiently for my purposes.

Capsicum is a type of a class of remedial agents which have been called by many different names, as stimulants, incitants, excitants, and, when used externally, epispastics, irritants, rubefaciants, vesicants, caustics and escharotics. Tully gives them the name of oresthetics. This name is derived from two Greek words, signifying to arouse, to stir up, to awaken, to excite susceptibility or sensibility. I use this term, as it is more comprehensive than any of the others.

Definition.—"Oresthetics are articles which, when taken internally, act primarily on the mucous membrane of the alimentary canal, and secondarily on all the other mucous membranes—in the first stage of their operation changing action in all these membranes, on the one hand obviating morbid torpor and insusceptibility, on the other hand obviating morbid irritability and sensibility, and also irritative activity; relieving laxity and spongy turgescence; increasing deficient secretions, diminishing excessive ones, favorably changing vitiated ones; disposing apthous affections and ulcerations to heal, and 'destroying morbid germs, spores and bacteria;' if pushed, in the second stage, occasioning a preternatural degree of irritability and sensibility; in the third stage, kindling into action an inflammation of the erythematic sort; in the fourth stage, producing ulceration and suppuration; and, in the fifth stage, extinguishing vitality.

"The essence of their operation, when used internally, is to increase susceptibility when deficient, diminish it when excessive, and improve it when vitiated."

Oresthetics are used internally for the first degree of their effects, except when applied locally, when a stronger action may be beneficial.

When used externally, they produce the same effects on the skin that they do on the mucous membranes when given internally; but a higher grade of action is usually required, and almost every degree of their action may be necessary. When use externally they are generally called epispastics.

All articles possessing pungency to the taste are oresthetics. I will only mention capsicum annuum, piper nigrum, zingibar officinalis, caryophyllum, mentha piperita, mentha viridis, many of the essential oils, the mineral acids, petroleum, carbolic acid, creosote, terebinthina, cantharides, bromine, gum guaiacum, aqua ammonia and carbonate of ammonia. Several of the above, however, have other as well as oresthetic properties.

Although oresthetics act, primarily, on the mucous membranes and the skin, their action is not confined to these tissues; they act also on other parts of the animal economy, more especially, I think, on the nervous system.

About fifteen years ago I had a number of cases of what I diagnosed to be local congestion, of the spinal cord. The patients complained of general discom-

fort, weakness and indisposition to move about. There was slight numbness and tremor in the extremities. There was no fever and but little pain. I always found a tender spot in some part of the spine. I used calomel, quinine and other remedies internally, and epispastics externally, without favorable results. I then tried tr. cantharidis in efficient doses, and the cases recovered in so short a time that I felt justified in attributing the good results to its action. I used the same remedy in a case of partial paraplegia, and also, for a long time, in a case of hemiplegia, with benefit in both.

Many of the pure oresthetics are useful in odontalgia; indeed, they are the remedies on which we rely in this painful malady.

In hyperemia, spongy turgescence, congestion, and many of the phlogoses of the mucous membranes, such as conjunctivitis, catarrh, stomatitis, tonsillitis, bronchitis, cystitis, vaginitis and gonorrhea, we rely mainly on this class of remedies for relief and cure.

In typhoid fever, the free and judicious use of spiritus terebinthinæ is often of great benefit. I think I have sometimes cut the disease short by its use. Iodine and arsenic are also used in the first stages, with the view of cutting it short. I have used them in a few cases only, but with benefit in all. In one, the good effects of iodine were very marked, after turpentine had failed to do any good. But iodine and arsenic both have other powers.

The use of the mineral acids in this and other diseases is so well known as only to require this allusion to them.

I am aware that opium is our main reliance in diarrhea and dysentery, both acute and chronic; but proper oresthetics, given either alone or in combination, are often of great service.

We have many different articles belonging to this class, some of which are indispensable to the best treatment of affections of the bronchial mucous membrane. Balsam tolu, benzoin, capsicum, cantharides or petroleum are generally chosen.

Do oresthetics ever produce true aphrodisiacal effects? By aphrodisiacs I mean those remedies which increase sexual appetite, and at the same time the power to gratify it.

When virility is impaired by intellectual pursuits, sedentary habits, or want of use of the procreative powers, and the general health is otherwise good, the judicious and persistent use of proper oresthetics, I think, will be beneficial.

In such cases I have used the following prescription with advantage:

℞ Tr. cantharidis, ʒ i.
Acid. phosphor. dil.
Tr. ferri chl., ää ʒ ij.
Syr. limonis, q. s. ad., ʒ iv.

M. S. Teaspoonful four times a day.

When virtility is impaired, or lost, by masturbation, or over indulgence in sexual intercourse, oresthetics would do a positive injury, if used at first; but if the patient quits his bad practices, and is put on a course of tonics, with out-door exercise and cold baths, and avoids all dalliance with women, lascivious conversation and lewd thoughts until his general health is restored, and his virility does not then return, I would advise the oresthetics mentioned above, or some oresthetic which has the (so-called) alterative power combined with it, iodine perhaps being the best.

Oresthetics are useful, if not indispensable, in hemorrhage, where it occurs in a part of the system to which they can be applied locally. Among the best of them for this purpose are carbolic acid, creosote, nitrite of silver and heat, hot water being the medium for the latter. They cause a constriction or closing of the open mouths of the bleeding vessels. Some styptics produce the same effect but by another power altogether. This is proven by the fact that creosote and other oresthetics possess no styptic properties whatever, and tannin and other styptics have no oresthetic power.

Scalds and burns are promptly benefitted by oresthetics. I think the peculiar constriction produced by the remedies causes the over-distended blood vessels to discharge their contents, and thus relieve the tension, which, at least in part, causes the pain.

The diseases of the skin usually treated by medicines of this class are too numerous to be mentioned in this paper.

The action of oresthetics is sometimes mistaken for the action of so-called stimulants. If there is a term in the medical vocabulary more vague and uncertain in its signification as generally used than any other, that term is stimulant. To illustrate: Calomel is said to stimulate the liver, although it is known to be antiphlogistic; spirits of nitre is said to stimulate the kidneys, yet its continued use is sure to cause more or less debility; tartar emetic is said to stimulate the stomach, yet it is one of the most exhausting remedies we have.

Adopting the definition that stimulants, so-called, "are medicines which produce a diffused, and, more or less, transient increase of vital energy and strength of action, first in the sanguiferous and afterwards in all the other parts of the system," pure oresthetics are never stimulants, although this power is sometimes found in combination with the stimulant power.

I have reserved the mention of carbonate of ammonia and aqua ammonia until now, for the reason that I believe they are oftener used as stimulants than any other of the pure oresthetics. In the beginning of my practice, and by the advice of older physicians, I used them for this purpose myself, but was always disappointed. If we wish to produce an irritant or pure oresthetic effect, both of these articles are very efficient.

When some oresthetics are used injudiciously, or continued for too long a time, they produce a sense of weight and discomfort in the stomach, with partial loss of appetite. If the medicine is continued still further, these symptoms increase till the patient complains of a load in the stomach, even when it is empty, with anorexia, headache and general distress. When these symptoms appear, no good can come of the further use of the medicine. This is the reason, I think, that many of the tonic elixirs fail to do good after one or two bottles have been used, for they all contain one or more of the oresthetics. Those which produce these effects in the shortest time, according to my observation, are mentha piperita, cassia and caryophyllum. Some oresthetics do not seem to cause this trouble. I have used cantharides for months without a bad symptom. Piper nigrum, capsicum, mustard, and many others are used as condiments, with no bad effects.—J. R. L. Clarkson, M. D., in *St. Louis Courier of Medicine*, Oct., 1882.

Hot Water in Therapeutics.*—The use of hot water in the practice of gynecology has come to occupy so important a place as to make it hard for us to realize, looking back, that we could do without it; and although my own experience of its value in this department corresponds in the fullest degree with that of others, I yet wish to assert emphatically that in certain therapeutic applications its value appears to be even greater.

Several years ago I learned in my own personal experience that no agent relieves nausea and vomiting so satisfactorily and promptly as water as hot as can be drunk. Since then I have used it in a large number of cases, and no remedy that I ever administered in any condition has proved more uniformly reliable. I have preserved records of many of these cases, but to transcribe them here would prolong this paper to a tedious length. I make, therefore, the following classification:

1. Cases in which nausea and vomiting occurred at the onset or during the course of acute febrile disease.

2. Cases in which these symptoms were caused by

*Read before the Louisville Medico-Chirurgical Society, August 4, 1882.

overloading the stomach when its functions had been impaired by protracted disease.

3. Cases in which they were produced by nauseous medicines (not emetics) at the time they were taken.

4. Cases of acute gastritis caused by the ingestion of irritants.

5. Cases in which these symptoms were purely reflex.

6. Cases of chronic gastritis.

7. Cases of colic in newly-born infants.

8. Cases of flatulent distention of the stomach in adults.

Class 1 contains a number of cases in which the value of hot water was most strikingly illustrated. Among them is a case of diphtheria and one of puerperal septicemia.

I might include also a case of tuberculosis in which the stress of the disease fell on the digestive apparatus. In each of these a half glass of hot water always gave prompt relief when every other remedy had failed.

Of all, however, the cases in which the use of this remedy seemed to produce the most impressive and the most permanently beneficial results were those of cholera infantm. In these it would often happen that hot water would not only itself be retained when absolutely everything else was rejected, but would immediately render the stomach tolerant of food. Taking advantage of this effect, my manner of using it is to give a few teaspoonfuls as often as it is necessary to administer food, and immediately afterward, while the stomach is fully under its sedative influence, to give food in small quantities. I have seen a number of children get well whose recovery I am confident was due solely to this treatment.

In class 3 there are cases in which the stomach had rejected all medicines for many hours together, but retained them readily when given in hot water as a vehicle.

In class 4 a victim of alcoholism, after a prolonged debauch, during which an enormous quantity of whisky had been drunk, had reached a point at which the stomach would no longer tolerate whisky or anything else. Hot water was given and retained, and the stomach rendered tolerant of food immediately.

In class 5 the patients were the subjects of vomiting in pregnancy. The effect produced in these cases was much less satisfactory than in others, yet sufficiently favorable to justify the positive statement that hot water is a remedy of considerable value.

Concerning classes 6, 7 and 8, which include cases of patients who were the subjects of various manifestations of indigestion, it suffices to make the general statement that the administration of hot water constituted a very important part of their management, and was followed almost invariably by good results. In the treatment of dyspepsia my rule is to order hot water in every case, to be taken before each meal, and as often at other times as suits the patient's convenience. I have found that this draught before meals causes discharge of any undue amount of gas in the stomach by eructation. One of my dyspeptic patients told me that whenever he took food his stomach was so distended by the gaseous products that came from the imperfect digestion of his last meal as to be incapable of getting the proper "grip" upon what he ate. This gentleman thinks that hot water did more toward curing him than any of the many remedies he had tried. It affords relief in the same manner to young infants who suffer from colic, and I rarely have occasion to prescribe anything else for them.

In the case of another dyspeptic, who is the victim of gout also, attacks of indigestion were accompanied by very distressing palpitation of the heart. I saw this patient once during an attack which happened at night, and she was in a sad plight indeed. Her heart was beating with an irregularity of force and of rhythm such as I had never seen before, and a horrible sense of impending dissolution made sleep impossible. I asked her to drink a large quantity of tepid water, hoping it would cause her to throw up the contents of her stomach. The water brought, however, was decidedly hot; but she drank it, and almost instantaneously the palpitation was relieved, and in a surprisingly short time she passed into a tranquil sleep.

The *décongestive* (to use a word applied by Courty) and hemostatic action of hot water have been accounted for in a variety of ways by different gynecologists. Since it appears clear that its results from medical and from surgical application are referable to a common principle, I will mention some of these.

Dr. Pitcher, of Detroit, who was among the first to notice this property of hot water, thought that when applied to a bleeding vessel the immedia.e effect is dilatation, which sufficiently slows the current to favor the formation of a clot, and that afterward constriction occurs, by which the clot is firmly held and the lumen of the vessel effectually closed.

Dr. Emmet, to whom especially belongs the credit of having given most satisfactory demonstration of the value of this agent in gynecological practice, says that the direct results of its application to a bleeding vessel is relaxation of the coats and vascular turgescence; but that, if the application is continued, in a short time reaction follows and contraction takes place. "In other words," he says, "the reaction from heat is contraction."

Carl Richter, of Berlin, thinks "the contact of hot water with the partly-denuded inner wall of the uterus causes a slight inflammatory irritation, an edematous transudation, and a swelling of the tissues, principally the sub-mucous, inter-muscular, and perivascular connective tissue, by which the blood-vessels become compressed and their lamina thereby occluded."

The action of hot water upon the blood-vessels of the uterine or gastric mucous membrane, or upon abnormally full or bleeding vessels in any part of the body, may be explained, I believe, simply and readily by a quite well-known physiological practice. This principle is set forth in the following experiments, which are recorded in Paget's Surgical Pathology: "If while we watch the movement of blood in a companion artery and vein (in a bat's wing or frog's foot), we draw the point of a fine needle across them three or four times without apparently injuring them or the membrane over them, they will both presently contract and close; then, after remaining a few minutes in the contracted state, they will begin again to dilate, and will gradually increase in diameter till they acquire a larger size than before the stimulus was applied. When in this condition they will not again contract upon the same stimulus as before. The needle may now be drawn across them much oftener and more forcibly, but no contraction ensues, or only a trivial one, which is quickly followed by dilatation. With a stronger stimulus, however, such as that of great heat, they will again contract and close, and such contraction may last more than a day before the vessels again open and permit the flow of blood through them.

Further, Wharton Jones found that the application of cold is followed by speedy constriction, but that this soon yields to dilatation which may pass beyond the limit of what is normal. It thus appears that the application of heat or of cold of a mechanical or chemical stimulus may take the vaso-motor terminals by surprise, so to speak, and cause contraction of the muscular coats of the minute blood-vessels. After this, however, the effects of heat and of cold are seen to be markedly different. The contraction caused by the latter is followed by a dilatation beyond normal limits, while that of the former is sustained for a considerable length of time. The most obvious explanation of this difference of behavior is probably the true one. Heat adds a form of force to the contracting tissue, which makes up for the expenditure involved in the acts of contraction, while a cold medium abstracts some of the force normal to the tissue; so that the contracting tissue loses both by exhaustion and abstraction of force. In other words, the ultimate

effect of a cold medium is that of a paralyzant. This explanation is more readily appreciated when it is borne in mind that, according to Haller's law, the force by which muscular tissue contracts is generated in the tissue itself, and is not transmitted to it through a nerve-conductor, as electric force may be through an iron wire. Bearing directly upon this question is an observation made by Dr. Beaumont, in his classic experiments upon the stomach of Alexis St. Martin. He found that the ingestion of very cold water was followed immediately by blanching of the gastric mucous membrane, and that there quickly ensues a redness more intense than exists in the normal state.

Now from whatever cause nausea and vomiting may arise—whether from the direct contact of such an irritant as zinc sulphate, or as an effect of such an emetic as apomorphia injected into the blood and carried by it to the nerve-centers controlling these phenomena, or from some reflex influences, it is certain in many instances, and probable in all others, that the vaso-motor centers controlling the gastric blood-supply are also influenced and gastric hyperemia brought about; and this condition being the link in the causal chain which is broken by the commanding impression made by the contact of hot water upon the gastric lining, the effect fails to follow.

Though the difference between hyperemia produced by an irritant acting for a short time and that which is an essential part of gastritis, is not fully understood, clinical evidence derived from some of my cases goes to prove that the contact of hot water produces the same effect in both—contraction of the muscular tissue of the minute blood-vessels and expulsion of the surplus blood. The effect of hot water relieving flatulent distention of the stomach appears strictly parallel. In this condition the muscular coat of the stomach, impeded by gaseous pressure, is excited to extraordinary work and the gas immediately expelled.

There is a corollary to the proposition mainly discussed in this paper that should not be omitted. I have noticed that patients who began taking hot water to allay nausea and vomiting could not only take large quantities without inconvenience, but came presently rather to like it than otherwise; and so, at times, when little or no cold water could be taken, by drinking it hot they would get sufficient water to meet fully the requirements of the organism.

This fact has, I think, a very important bearing in therapeutics. It often happens, both in acute and chronic disease, that the issue depends solely on the question as to how well the kidneys will hold out. In many diseases the structure of these important emunctories, though primarily not at all affected by the morbid process at work in the organism, is liable to serious damage from secondary causes. In some diseases the *materies morbi* itself, in the act of elimination, seems to be principally the offending agent; in others, the harm is done by the debris of the tissue destroyed in the progress of the disease; but in all the injury done seems related rather to the concentration of the urine—to the smallness of the amount of urinary water—than to the absolute amount of urinary solids. In cases of fever in which the temperature keeps high for a long time continuously, it does not matter at all of what kind the fever may be, the urine is high-colored and full of irritant organic matters. These are the cases in which the kidneys are threatened, and in whose urine albumen and tube-casts are most likely to be found.

We feel assured, moreover, that the kidneys of our gouty patient, who is drinking his gallon or more per diem at some watering place, enjoy a respite, for the time, at least, from the ravages of uric acid. An important part, therefore, of the treatment of all these cases is to put water into the blood freely. Hercules would doubtless have been overwhelmed by filth had he tried to cleanse the stables of Augeas by his unaided efforts, so he wisely turned in the rivers Peneus and Alpheus, and his appointed task was accomplished with surprising ease. In like manner will the epithelial cells of the tubules of the kidney become overburdened and clogged with destructive effete matters if sufficient water fails to flow from the glomeruli. But dilution of the urine is not the only good result that comes from making our patient drink freely of water. The skin also exercises an important emunctory function, and a considerable part of water taken into the circulation is eliminated in this direction, and carries along a large share of effete matter that would otherwise add to the burden of the kidneys.—Douglas Morton, A. M., M. D., in *Louisville Medical News*, Aug. 12, 1882.

Warm Bullock's Blood for Ænemic Females.—I am fully convinced if the use of warm bullock's blood in the numerous cases of ænemic females which come to the notice of the family practitioner were more fully understood it would be better appreciated, and it would come into more general use in this character of cases. There is to the delicate and refined lady (and we are not surprised at it) something repulsive in the very mention of her drinking blood, and particularly the warm blood fresh from the dying animal; yet in every case in which I have succeeded in inducing a delicate and refined lady to use this treatment, that lady has not only become readily accustomed to drinking blood, but in most cases become quite fond of it. And further, notwithstanding the natural revulsion to its use on first efforts to persuade the patient to commence it, I have only in a few (very few) instances had them to positively refuse, but after the first "shock" they have rather been pleased with the novelty of the treatment. And as we know most ladies are fond of that which possesses some little adventure and an exhibition of bravery on their part, they have after some persuasion entered into the arrangement with an earnestness which grew as they progressed, ending in the persistent use of the blood until its permanent effects were realized.

The points which are of most interest in regard to the use of the warm bullock's blood are probably these:—

1st. In what character of cases is its use indicated and most successful?

2d. In what manner is it to be prescribed and drank?

3d. What are the results of its use?

In reply to the first question, in what character of cases is its use indicated and most successful? I would say (and I speak from personal experience only) whenever there is that anæmic condition causing the physician to feel a desire to furnish to his patient a sufficiency of good red blood, and thus change that pinkish pallor, bring up that "baby pulse," and enable her to regain some of her lost flesh. But more particularly in the case of the young woman who comes to you, or whose anxious mother sends for the doctor to consult him in regard to her daughter, and whom on examination he finds to be a thin, pale, anæmic young woman, having a pulse of seventy-two when sitting still, and one hundred and twenty or thirty after ascending and descending a flight of stairs, who cannot walk a few squares or sweep a room without great fatigue, and whose appetite is capricious; the catamenia entirely suppressed or scanty in quatity, pale in color and thin in consistency; who complains of pains in her back or breast or both, and who probably has all manner of fears when awake, and dreams when asleep, but whose chest, on percussion and auscultation, shows no especial indications of affected lungs. These, or similar ones are the cases, are the cases in which the use of blood is indicated, and which, if persistently taken according to directions there will be a radical and permanent cure without the use of a single drug. It might be well to add here that in those cases where the anæmic was the result of incipient or developing phthisis I have found very little beneficial result to accrue.

After determining the case to be a proper one for the "blood treatment," too much importance cannot

be attached to the second point named, i. e., how is it to be prescribed and drank? I am free to say that upon the manner in which the blood is prescribed and drank depends very much the success of the treatment. My plan has been:

1st. To thoroughly persuade my patient to adopt the course of treatment.

2d. To make arrangements with the proprietor of a first-class slaughter-house.

3d. To accompany my patient (if possible) on her first vist; then have her visit and drink at least three times a week, carrying with her her own towel or napkin, and a goblet to drink from (a goblet is best, as it can be handled without soiling the hands, as with a tumbler). The first day she drinks the glass but one-fourth full, the quantity being increased gradually until a full glass is drank each time. The blood is to be drank warm and pure, just as it flows from the neck of the animal; the only addition I have yet allowed has been a small quantity of salt, which some patients prefer, to make it more palatable. On one occasion the gentleman with whom I had arranged to furnish my patient with blood undertook to remove the fibrine, but when sufficient time had elapsed to allow of this process that which remained had become thick, cold, and nauseating, and I was unable afterwards to induce her to continue the treatment; therefore it is of paramount importance that it be drank in its original purity, warm, and immediately after being taken from the neck of the steer. Indeed, my plan has been to have the patient stand as near as possible to the animal without being in sight; the blood being caught in the glass as it flows from the incision is handed to her and drank immediately.

I will now as briefly as possible reply to the third interrogatory. What are the results of its use? My experience has been that in every case where directions have been carefully carried out, and the treatment persisted in for a sufficient length of time, the result has been perfectly satisfactory, and such as to warrant me in urging upon the medical profession the use of this simple and yet most effectual line of treatment, the average gain in weight being fully one pound per week. It may be interesting to add a few from the large number of cases in which I have had the pleasure and satisfaction to use the blood, and to state what was the result in each case:—

1. Mrs. H., married, had one child, remarkably anæmic, duration of treatment thirty-six weeks, gain in weight thirty-six pounds, average gain per week one pound; health perfectly restored.

2. E. M., single, anæmic, debilitated, weight at commencement of drinking, eighth-two pounds, duration of treatment twelve weeks, average gain per week, one pound, with continued improvement in general condition. This young lady had for years been subject to attacks of hay fever, coming on regularly about August 20th of each year. She commenced to drink blood in February, and continued during the spring and summer, in the hope of it so building her up that she would be better able to bear her fall trouble. I am glad to say all she suffered from in the fall was a slight coryza, and was not confined to the house one day during the attack.

3. A. K., single, very thin and anæmic, duration of treatment four months, average gain in weight per week one pound; health and strength perfectly restored.

4. L. M., single, a brunette, ænemia not so marked, but a sufferer from constant languor and general debility, duration of treatment twenty weeks, average gain per week, one and one-half pounds; health perfectly restored.

5. E. J., single, anæmic, weight at commencement of treatment one hundred and three pounds, duration fourteen weeks, average gain per week, one and one-quarter pounds; health fully restored.

6. Willie O., a lad seven years of age, having suffered from continued sea-sickness during the voyage from England ten months previous, and from the shock of which he did not recover, but had gradually declined until, when I saw him, he was attenuated, pale, subject to pains in his head and limbs, no appetite, and daily nausea, which had not yielded to ordinary tonic treatment. He commenced drinking the blood in teaspoonful doses, which in a day or two he increased to a wineglassful. His gain in weight was five pounds each month, and in three months he was perfectly well and had regained his full measure of strengh.—Thomas S. Butcher, M. D., in *Medical Bulletin*, Nov., 1882.

[The difficulties in the way of a successful carrying out of the blood treatment, after the plan laid down by Dr. Butcher, may be entirely overcome by the employment of the Sanguis Bovinus Exsiccatus. The preparation is dried blood deprived only of its fibrin, and prepared after a process which guarantees such perfect freedom from change that its addition to luke warm water is all that is necessary to reproduce the blood (minus its fibrin) in a condition perfectly identical with that fluid as it flows from the bullock. By its use the inconveniences attending the use of freshly drawn blood, the disgusting scenes of the slaughter house, etc., are all avoided.—Ed. Therapeutic Gazette.]

Medical Doses and Their Relation to Therapeutics.—That medicine is not yet an exact science is easily demonstrated. A cursory examination of any work on materia medica will indicate a lamentable lack of knowledge in regard to the precise method of action of medicinal agents, and show, as well, a general indefiniteness as to the proper amount of an individual article necessary to produce a specific result. After making due allowances for the differences of age, sex, temperament, climate, etc., there is yet apparent a want of exactness as to the dose in relation to the effect desired, which is altogether puzzling to the younger student in medicine, and distasteful and unsatisfactory to the older practitioner. The habit or custom of speaking of a particular article of materia medica as a tonic, stimulant or sedative, or otherwise, without reference to the quantity used, is, as it seems to me, so far misleading that it ought to be discontinued, except, perhaps, in a leading way to designate the general character of the article in question. There can be no doubt to-day that a proper dose of a medicine may be given with remedial effects to a person suffering from a condition of system such as another dose of the same medicine may have caused. For instance—given a person in a certain condition—administer a gramme of ipecac, and vomiting will result; again, to the same person, with excessive emesis, give three milligrammes of ipecac and his vomiting will cease. To another give a gramme of colocynth, and expect excessive drastic catharsis, with cramps and colic; and then to the same person, suffering from severe peristaltic action of the intestines, give five milligrammes of colocynth and relieve the pain.

Facts like these call for explanation. If we confine our thoughts to the old channel, and expect to find that each article used as a medicament will produce certain results, differing in degree only as we change the dose, the explanation will be difficult. It is not my purpose in this article to attempt to explain the general *modus operandi* of medicinal agents. I desire to impress the fact that different doses of the same medicine will produce widely different results, to the extent in some cases, possibly in many—especially in reactive doses—of results apparently antagonistic. Bear in mind the simple philosophical axiom that "action and reaction are equal and in opposite directions," and these results are easy of explanation. I am aware that just here comes in the pretended proof of the unscientific and ridiculous dogma of "similia," etc., of the homœopaths. I am not prepared to say, however, that the indefinite infinitesimal dose of a similar is less scientific than the indefinite larger dose of a dissimilar.

Three to five milligrammes of ipecac will, by a gentle tonic action, stimulate a deranged stomach into normal activity, while ten centigrammes, or even three, if assisted by a like amount of opium, as in the Dover's powder, will extend beyond the stomach and produce a sudorific action. A gramme of ipecac will produce such violent activity as to result in emesis. In precisely the same relative proportions and doses the different results attributable to colocynth may be understood.

To a lack of proper recognition of definiteness in the different doses, when different results are desired, may be charged the harm done by the abuse of quinine, as it is now, in many cases, so empirically and so unscientifically administered. The primary effect of quinine is tonic. In moderate doses, say from three to fifty centigrammes—having reference to age, sex, condition, etc.—it is eminently tonic, producing activity in the capillaries, and creating a general tone and energy in the systematic circulation. In the above doses, repeated so often as to become cumulative, or in the larger doses of from thirty to sixty centigrammes, given less often and during the interval of an attack, it is an anti-periodic, and then, in the enormous reactive doses of a gramme and a half to two grammes, it is an antipyretic. It is here, in the matter of the use of quinine, to reduce the temperature, more especially, that a word of caution seems to be needed, looking to a reformation in the manner and time of its use, lest the folly of half a century ago of the careless resort to one medicine in almost every disease, whether rationally indicated or not, be repeated to-day by substituting quinine for calomel.

As the homœopathist, in the rare case of his honestly adhering to his irrational dogma of the similars and infinitesimal potencies, falls into the habit of watching symptoms, and so gives his patient an infinitesimal like to cure a like—really doing nothing—while nature cures or kills the patient, so may it not be possible that the "regular practitioner," falling into the easy habit of resorting to the thermometer, and, when it indicates excess of temperature, prescribing quinine, and persisting in its use, at the risk, in some cases, of harming rather than helping his patient? A special diagnosis, under such circumstances, is but of little importance. A general name, as "malarial fever," or "typo-malarial fever," will do for all the diseases arising from decomposing vegetable or animal matter, and "pneumonia" for all forms of inflammatory affections of the lungs or bronchial passages will be quite enough to satisfy the patient and his friends, and then, how easy the routine—note the temperature, and finding it above normal, prescribe quinine indefinitely but persistently. Perhaps the patient may complain of a "bursting headache," or there may be complete delirium! What matter? The temperature is high—push the quinine. Finally a reactive dose is reached, the powers of nature yield, and the patient either dies in collapse, or gradually rallies from the prostrating effects of the disease or the medicine, or both, and by careful nourishment convalescence is established and he recovers.

The reactive or antipyretic dose of quinine is a remedy potent for good or evil; and, like venesection, should be used with great care after careful diagnosis and with direct reference to its powerfully sedative action.

A tonic dose of quinine should never be given to reduce the temperature; it will have only the opposite effect. Again, a tonic antiperiodic dose of quinine, as a rule, should not be given during the exacerbation of a fever.

Many diseases have symptoms in common; prescribing for symptoms, without reference to a careful diagnosis of the disease, is as dangerous as it is unscientific.

Many remedial agents produce results widely different, often antagonistic, according to the quantity given. The selection of the dose of a remedy is quite as important as the choice of the remedy itself. —N. L. North, in *Medical Record.*

Why we Cough and How we Cough.—The following article from the Journal of Chemistry will not be inappropriate at this season:

Everybody coughs sometimes, and, judging by the quantity of patent cough medicines sold, many people must be coughing all the time. Most persons suppose that a cough is a cough the world over, and that what will cure one will another; and so they prescribe for themselves and their friends all sorts of syrups, home made or proprietary, with the consoling assertion that "it can't do any hurt, if it don't do any good." How do you know it can't do any hurt? Do you know its ingredients, and, if so, have you studied their effects upon the system in health and in disease? Do you know the condition of the patient you are prescribing this for—his constitution, his habits of life, his past history?

Let us see what a cough is. It is a sudden and forcible expulsion of the air from the lungs, preceded by a temporary closure of the windpipe to give additional impulse to the current of air. The effect of these spasmodic expirations is the removal of whatever may have accumulated in the air-tubes, whether a foreign body from without, as when a particle of food finds its way into the windpipe, or an accumulation of mucus secreted by the air passages themselves.

Coughing is in part a voluntary act. We can cough whenever we wish to, but frequently we are compelled to cough when we don't wish to. Nerves are divided into two classes, sensory and motor nerves. The former carry intelligence to the brain; they report any disturbance on the frontier to headquarters. The motor nerves then carry back the commands of the general to act. You tickle a friend's ear with a straw, and his hand automatically proceeds to scratch the itching member. A tickling sensation is produced in the throat by any cause whatever; the brain then sends back orders to the muscles concerned to act so as to expel the intruder, in other words, to cough. And that is how we cough.

The source of the impression may be various. Frequently it is due to an irritation of the respiratory organs by foreign bodies, dust, and acrid vapors, admitted with the air in health, or to damp, cold air itself, if the organs are particularly sensitive, or to the presence of mucus, pus, or blood, in disease. Inflammation, from whatever cause, acts as a source of uneasiness.

There are, as we all know, many different kinds of cough. Thus, we have the dry cough, without expectoration, and the moist cough, with expectoration. We have the short, hacking cough, resulting from slight irritation, and the violent, spasmodic, and convulsive cough, caused by a greater degree of irritation, or some peculiar modification thereof. Then there are the occasional, the incessant, and the paroxysmal cough, terms that explain themselves. Hoarse, wheezing, barking, and shrill coughs are due to the tension or capacity of the rim of the windpipe, or other portion of the tube. The hollow cough owes its peculiar sound to resonance in the enlarged tubes or the cavities in the lungs, if such exist. Sometimes the exciting cause of a cough lies not in the lungs and respiratory organs, but in the stomach, liver, or intestines. In other cases there seems to be no real cause; it is purely nervous or hysterical.

Cough remedies should be suited to the kind of cough in question, and attempt, if possible, to remove the cause. It is evident that a cough may be lessened either by removing the source of irritation, or by diminishing the excitability of the nervous mechanism through which it works. Both methods are generally employed, and most of the popular cough medicines consist of an expectorant and a sedative, in some mucilaginous or saccharine menstruum. Sedatives lessen the excitability of the nerve centre through which the act of coughing is produced. Opium in sufficient quantities will stop any cough, but if the secretion goes on accumulating, the patient must be allowed to cough, or he dies of suffocation.

Glutinous and saccharine substances lessen irrita-

tion, and as it frequently happens that much of the irritation which occasions the cough exists at the root of the tongue, and in portions of the throat which can be reached by troches and lozenges slowly dissolved in the mouth, hence these often afford relief, especially in dry, hacking coughs, and the so-called tickling in the throat. Iceland moss, marshmallow, and gum arabic belong to this class. Their power is probably due to their covering the inflamed and irritable surface directly with a mucilaginous coat, and thus protecting it from the action of the air and other irritants. An inflamed surface, whether within or without, is rendered worse by friction; therefore, in bronchial troubles, the inflamed surfaces are greatly irritated by the very act of coughing. All coughing beyond what is absolutely necessary for the removal of the accumulated mucus should be avoided, because it injures the parts affected by friction, and because it exhausts the patient; for the muscular exertion involved in a violent fit of coughing is very considerable indeed, and the muscular effort exerted by a patient with a bad cough during the twenty-four hours is really more than equivalent to that of many a man in a day's work. Both sedatives and mucilaginous substances can be employed, then, to check the excessive amount of coughing over and above that required to relieve the lungs and bronchial tubes of their accumulated mucus. To facilitate the removal of this, expectorants of various kinds are administered, according to the necessities of the case.

The difficulty in the way of recommending any one kind of cough remedy is that different coughs require different treatment, and what will relieve one may aggravate another. Then, too, the general health of the patient must be attended to, the secretions kept open, etc. In short, the maxim, "What is one man's meat is another man's poison," applies here as elsewhere, and induces us to protest against the use of any nostrum, simply because it cured a neighbor.—*Druggists Cir. and Chem. Gaz.*, Dec., 1882.

The Rational Treatment of Menorrhagia.—Dr. Arthur W. Edis read a paper on this subject, in the Section of Obstetric Medicine, at the last meeting of the British Medical Association, (British Medical Journal) from which we extract the following: In the term menorrhagia, he includes all cases of uterine hemorrhage occurring in the practice of the gynecologist, whether as profuse or prolonged menstruation, or as a loss of blood from the uterus other than that which occurs at or about the time of parturition. Sometimes it acts as a safety valve, a smart attack of hemorrhage often serving to avert a still more serious effusion from the ovary, or its surrounding plexus into the peritoneal cavity, or even preventing an attack of apoplexy at the so-called climacteric period. Diagnosis is the most important element of treatment, for menorrhagia is merely a symptom, not a disease. The age of the patient will often give us a clue to the cause; cardiac complications from rheumatic fever, hæmatocele, ovarian irritation, constipation, etc., in the young; polypi, fibroids, retroflexion, retained products of conception; in the middle aged, climacteric irregularities, cancer in its various forms, hepatic disorders, etc., between the ages of forty and fifty. In young plethoric girls, when menstruation is profuse, instead of iron, which will increase the trouble, regulate the diet, limit animal food and use bromides, to lessen ovarian irritation, along with an occasional saline aperient. In anæmic patients, when iron is used it should be combined with salines in moderate doses, as a chalybeate water. In single patients, where menorrhagia is marked and persists in spite of general treatment, an examination should be insisted upon. When the slightest irregularity in the appearance of the catamenia leads to the suggestion of the possibility of pregnancy, any attack of menorrhagia, and especially if it recur, should be regarded as a threatened miscarriage, and treated accordingly. When uterine hemorrhage is severe, whether from imperfect expulsion of an early ovum, intra-uterine polypus, submucous fibroid tumor, or other similar conditions, in place of attempting to restrain the flow by linen or cotton packed in the vagina, a far more rational and scientific method will be to insert a sponge tent into the cervix uteri. This will check the hemorrhage and dilate the cervix to facilitate subsequent examination. Hæmatocele is a frequently overlooked cause of menorrhagia, as is also extra-uterine gestation at an early stage.

If hemorrhage be severe and continuous, and the probability of extra-uterine gestation exist, the patient's life being evidently jeopardized by the amount of effused blood withdrawn from the circulatory system, the only hope of saving the patient is to make an exploratory abdominal incision, secure, if possible, the bleeding vessel, or remove the ruptured cyst, as may be found advisable.

Retroflexion, accompanied by congestion of the uterus, in patients who have borne children, is not an unfrequent cause of menorrhagia. A correct diagnosis is here essential before treatment is likely to prove of service. The two conditions are often so intimately associated that, unless both of them be dealt with simultaneously, permanent relief is not obtained. The misplacement serves to keep up the congestion, and the latter equally tends to prevent the uterus from assuming its normal position. Puncturing, scarification, or the application of leeches, followed up by hot water injection and glycerine plugs, may first be tried, to lessen the congestion, a ring pessary, or other appropriate support, being then inserted, to keep the uterus in its normal position, and thus lessen the tendency to a recurrence of the congestion.

The management of hemorrhage, due to large intramural or submucoid fibroids, is one often of much difficulty. Where ergot, bromides, cannabis indica, gallic acid, digitalis, and other similar remedies, fail to arrest the flow, and the patient's health is markedly affected by the repeated or severe losses, the question of spaying, division of the cervix uteri, or removal either of the fibroid or of the entire uterus, should certainly be entertained. The results obtained during the last few years by operative interference in these cases are most encouraging, and the operation well deserves more extended trial. No patient, the subject of uterine fibroid, where the symptoms are so severe as to impair her usefulness or threaten her life, should be allowed to die unrelieved, without having the option of operative interference.

Vascular disturbances at the climacteric, or change of life, as it is popularly spoken of, should never be treated lightly, but always carefully investigated.

In some instances, regulation of the bowels, restriction as to diet, especially the amount of alcohol, and a proper amount of out-door exercise, will be all that is requisite. In others, the hemorrhage persists, in spite of all treatment, and, on a careful investigation, epithelioma of the cervix uteri is at once detected, probably too late for any operative interference. In no case should hemorrhage at this period be diagnosed as change of life, without a careful examination being made and a correct diagnosis formed.

In cases of epithelioma of the cervix, when hemorrhage is a marked symptom, in place of giving ergot or iron and plugging the vagina, it will be much more rational to remove as much of the diseased mass as may be deemed prudent, with the écraseur or curette, or both combined, and then to apply either the liquor ferri perchloridi fortior, the persulphate of iron or the actual cautery.—*Medical and Surgical Reporter.*

Bacteria.—Time will probably show that many of the pretentious statements which have been made concerning the fungous germ hypothesis of contagious diseases are groundless.

There is, probably, not a part of the body of any one of us a quarter of an inch in diameter where bacteria germs are not present. Certainly every

time we eat, myriads are carried into our alimentary canal; and every time we breathe, except in the very purest atmosphere, multitudes pass into the air-passages. So small are these bacterial germs that they would pass without the slightest difficulty through basement membrane and through the interstices of any of the tissues of the organism; and yet the public are taught that there is some intimate connection between bacteria and dust and morbid phenomena. Erroneous notions are spread far and wide by sensation lectures, under such a title as "Dust and Disease." The dust which causes disease is of a most exceptional kind. It has been said that the air of the Swiss mountains is devoid of bacteria. But is the health and vigor of the inhabitants of the Alps to be compared with that of the workers on the Paddington Dust Heaps? As a fact, ordinary bacteria are harmless enough; they exist in us without disturbing us in any way, but they only grow and multiply in great numbers when circumstances become favorable. I can give you positive proof that bacteria germs exist not only upon the surface of the skin and mucous membranes, but in the internal organs, in the interstices of healthy tissues and in the blood itself. Some years ago I examined the layers of a fibrinous clot which had been slowly formed from the blood in the interior of a large aneurism of the aorta of a man who died of the disease. The body was examined six or eight hours after death. The aneurism had existed for many years; and probably some of the layers of fibrin which had been deposited were almost as old as the aneurism itself. Now, I found that in all parts of the firm, laminated, leather-like material, which served to greatly increase the wall of the aneurismal sac, there were indications of disintegrating changes having taken place. Upon carefully examining minute pieces of the fibrin under high powers, multitudes of bacteria and their germs were discovered without difficulty. But the older layers in the outer part were here and there softened, and portions of the fibrinous matter seemed eroded, many small masses of soft and broken-down material being present. All these teemed with bacteria, moving, growing and multiplying.

Now, these bacteria, like the fibrin in which they were growing and multiplying, were close to the blood, and within the vascular system; internal to the various tissues constituting the wall of the vessel, which was dilated to form the aneurismal sac. The bacteria must have been growing and multiplying in the lifetime of the patient, and probably for many months before his death occurred. They could not have got into the position in which they were discovered from the outside, for it is hardly conceivable that such an organism as a bacterium could have found out, while outside the body, that within the vascular system there was material suitable for its growth and multiplication. Neither is it possible that the bacteria could have made their way from without to the situation in which they were found, nor could they have effected, in the course of a few hours, the extensive erosions and softening discovered. Such theories could not be sustained with any show of reason. The only conclusion, therefore, which is in accordance with the facts in the case and with common sense, is that which I have before adverted to, viz., that bacteria germs exist in all times in all parts of the body, even in the blood itself, during the healthy state.

I conclude that as long as the normal state of things exists the living bacteria germs in all parts of the organism do not grow and multiply, but when any change occurs of the character of that which results in chemical decomposition, these bacteria germs multiply. This multiplication proceeds, although we are alive, just as it takes place in dead animal and vegetable matter. And it will occur in every part of every one of us a very few hours after death.

So you see that if bacteria germs constitute the actual, material, living particles by which contagious disease is propagated, they must be peculiar bacteria, totally different from the ordinary bacteria germs which exist and have existed elsewhere. The ordinary bacteria may certainly grow and multiply enormously on the mucous membranes of the body, in follicles of the mucous surfaces and in viscera—intestinal canal, bladder, and passages therefrom, nay, even among the elements of healthy growing tissue-without causing any disease at all.

Bacteria germs, low fungi and algæ exist in connection with the tissues and fluids of every human organism, and, as you may convince yourselves at any time, millions of these are unquestionably present during every moment of existence in health on the dorsum of the tongue. Multitudes, as I have said, pass down the alimentary canal every time we swallow food or fluid. Such ordinary bacteria and their germs do us no harm whatever. But please do not infer from what I have said that putrid fluids loaded with bacteria are inocuous or to be recommended. Organic matter in a state of putrefactive decomposition, when introduced into the alimentary canal, gives rise to pathological phenomena irrespective of the bacteria it may contain.—L. S. Beale, M. B., F. R. S., in *Slight Ailments.*

Calendula as a Vulnerary.—It has always been one aim of the surgeon to try and find some substance which would aid nature in the work of building up destroyed tissues.

Many substances have been used with greater or less benefit. About forty years ago a decoction of the French marigold, calendula officinalis, was brought to the notice of the medical profession in Germany. This decoction was made from the flowers, and many wonderful accounts are given of its powers in producing rapid and healthy granulation in surgical operations, and lacerated or torn tissues, and in reducing the amount of suppuration considerably. I have been carefully trying calendula in a number of ways during the past eight years, and it has given me full satisfaction.

Finding much difference in its action between the tincture ordinarily purchased, which is made from flowers and leaves, and the decoction made from flowers alone, I sent to New York for a lot of the pressed flowers and made a mild tincture, or it might almost be called a decoction, in the following manner. I filled a two quart jar with the flowers, not packing tightly, then poured over them one pint of hot water, (not boiling) and let it stand (covered) for an hour. I then filled the jar with diluted alcohol, covered tightly, and let it stand a week, shaking every day. Then filter. It gives a reddish brown liquid, of a pleasant aromatic odor. There is nothing caustic or irritating in its action. It produces no more sensation of pain to a cut or torn surface than water with the same amount of alcohol would.

It can be used freely as desired. I have found it eminently successful after all kinds of surgical operations, in rapidly starting up healthy granulations by first intention, also in all cases where the cuticle is torn or destroyed, and where the tissues are cut or lacerated. It seems to act very beneficially upon ulcerations and suppurations. I have used it very successfully in cases of irritable ulcers, also indolent ulcers. In each case it soon stopped the growth or spreading of the ulcers, and seemed to stimulate the parts into the formation of healthy granulations. I have tried it in many cases of ulcers, after strong nitric acid, caustic potash, carbolic acid, iodine, and many other applications had been used ineffectually to try and stop the spreading of the ulcer; and in every case it has done its work splendidly.

I have also used it with success, after other means had failed in ozœna, where the ulceration could be reached with a syringe by either the posterior or anterior nares. In these cases I preferred to dilute it a little, using a teaspoonful to half a cup of warm water. In ulcerations of the cervix uteri, it is equally as serviceable. In fact, it can be said to be the enemy of ulceration and suppuration.

I have had excellent success with it in combination with glycerine or oil in cases of severe burning, where the cuticle and tissues were cut, torn, or in any way destroyed. I will mention a few cases:

Mr. J. B., while attempting to drill out a blast, an explosion took place; the drill, which he was holding in his right hand, was shot out, and in doing so tore out the palmar surface of the hand, dislocated the wrist, the thumb was dislocated and torn loose from its palmar attachments, so that it laid back upon the wrist. There was also a simple fracture of the radius and ulna, also of the humerus. It was thought at first the hand would have to be amputated; after ligating the arteries and reducing the dislocation at the wrist, and attending to the fractures, I then replaced, to as near their proper position as possible, the lacerated tissues of the hand; placed the thumb in position, held it there with a bandage. I then covered the whole palmar surface with lint, well saturated with calendula, and bound the hand to a broad splint, extending from the elbow to beyond the finger tips. The lint was kept saturated with the calendula. Granulation began almost at once, and progressed very rapidly and favorably, and with hardly any suppuration. The hand was saved.

D. J. worked at the Tredegar works. Came to me with a burn caused by being struck with the edge of a red-hot iron plate as it came from the roller. The burn was eight inches long, one and a half inches deep, and half an inch wide, and extended across the right thigh. The lips were drawn together with sutures as well as could be done, although complete junction could not be made. A pad saturated with calendula and glycerine, equal parts of each, was kept upon it. Healthy granulations were formed rapidly, and the wound healed beautifully by first intention, and with hardly any suppuration. I have seen it used with equally good results in the treatment after the operation of ovariotomy.

I could give many more cases, but these will suffice, There are many physicians, especially amongst the homœopathic school, who have used calendula for many years with much success.

Having given my experience with it, I should be glad if others who have used it would give theirs. I would also be glad if many of the noted surgeons would give it a trial, and report their success.—"Reader," in *Southern Clinic*, Oct., 1882.

Methods of Overcoming Rigidity of the Os Uteri.—How Not to Use Ergot.—Doubtless a great deal of mischief sometimes results from "meddlesome midwifery," and nature alone is in many cases better to be trusted than any disturbing efforts of the accoucheur. Yet nature often fails entirely when a little timely and skillful assistance ensures a safe delivery. In my experience the most common cause of tedious labor is a rigid os uteri, and according to the same experience no obstacle is usually so easily overcome by a judicious interference.

In the earlier years of my practice I once gave ergot in a case of abortion at the fifth month, when labor was being retarded by this cause. I had been well instructed, and, therefore, knew that ergot was wholly unsuitable whenever such an obstacle to speedy delivery existed, but mistook the real condition, from a lack of the *tactus eruditus*. The ergot brought on pains of tremendous force, and, as is to be expected from its physiological action, contracted the circular muscular fibres in the os more than those in the fundus, so that the hard, thin, unyielding rim which the finger encountered was unmistakable for one of even very moderate experience. I tried applying extract of belladonna to the os locally, and might as well have rubbed on lard for all the good resulting. Then hot water, that modern cure-all, was faithfully injected into the vagina, but without any decided effect. My patient was screaming from the intensity of pains which were literally doing no good, but much harm, by the constant impact of the hard head against the scarcely more yielding fibres of the os. The great value of the various narcotics in such emergencies had not then been impressed upon me by the lessons of experience; but the situation was becoming desperate, and something had to be done. The relaxing power of the warm bath occurred to me and I ordered a tub of hot water to be brought in. The patient was then taken out of bed, and made to sit in this tub, thus receiving a hot hip bath. In fifteen minutes, or even less, after she got out of the tub, the os had freely dilated, and almost immediately thereafter the fetus was born.

I have never had to repeat this experiment with the hot bath, for since then I have never given ergot, if at all, until after the os had fully dilated, and have learned that by administering chloral and opium, by the mouth, or preferably, morphia and atropia hypodermically, the most refractory os can be speedily relaxed. A sleep of half an hour or an hour, however procured, rarely fails to accomplish the desired result. But very often when the intention has been to procure such a nap for its dilating power, the effect of the narcotic has been to soften the os at once, and thus to render the pains more efficient, without any sleep ensuing, so that the patient and her friends would charge me with having administered "forcing medicine," instead of an anodyne.

In some cases very good results have been produced by having the patient sit over a commode filled with hot water, the steam acting as a relaxing agent. This is sometimes highly useful when labor is delayed by a rigid os, and besides has an excellent moral effect upon the fussy friends, who are never contented unless something is constantly being done.

Scores of cases could be reported if necessary, where the above-mentioned measures have proved promptly efficacious, in some instances after the woman had been having severe pains for from twelve to twenty hours previously without making any progress; but it seems useless to narrate them in detail.

There appears, however, to be reason enough for calling attention very strongly to the fact that ergot is above all drugs dangerous when there is rigidity of the os uteri during parturition, and that chloral, morphia and atropia (the last two hypodermically by preference) are the most valuable relaxing agents in such a condition. I notice in the Reporter of December 16th, p. 697, the report of a "Death During Parturition," which has suggested to me the importance of discussing this subject. The attendant in that case not only gave ergot and apparently "pushed" it in a case of rigid os, but attempted to perform version under the same unfavorable condition, and that too for no better reason than that he "found the left hand by the side of vertex engaging the small unyielding os." Those were, of course, errors of judgment which, happening under such exciting and embarrassing circumstances, do not call for harsh criticism. But they show at least that the profession has not yet all learned how rightly to use that two-edged sword—ergot.—Boardman Reed, M. D., in *Medical and Surgical Reporter*.

A Case of Acute Muscular Rheumatism Treated by Colchicin Hypodermically.—The following case, treated in the German Hospital during the recent service of Dr. Frank Woodbury, is interesting as showing the new use of an old remedy, and for a disease which is often intractable. The relief experienced was quite as positive as that which had been afforded previously by morphia injections, and far more permanent.

J. H., German, aged 28, brewer, was admitted into the German Hospital on the 28th of August, 1882, as a case of muscular rheumatism. The history showed this to have been a first attack, due to exposure to wet and cold, and contracted two months before. During this time he had not had any regular medical attendance, but had vainly used many popular nostrums for relief. Upon admission, the patient was robust and well nourished; he had no fever, but

there was great tenderness and pain in the muscles involved, which were chiefly those of the calves of the legs and the flanks on both sides. Following the hospital custom in these cases, he was at once placed on salicylate of sodium for a few days; but, no relief being experienced, he was ordered twenty-drop doses of tinct. ferri chlor. in one drachm of syr. limon., four times daily, given well diluted with water. He was kept in bed, and locally a combination of chloroform, turpentine, and soap liniment was directed to be used night and morning. A week later it was found necessary for the acute exacerbations of pain that a quarter of a grain of morphia sulph. be injected beneath the skin occasionally. It should be stated that while confined to his bed his diet was carefully regulated, meat and stimulants being interdicted. This plan was continued until September 18, with the result of affording temporary relief, but without permanent success. Indeed, the patient was often in greater pain than at any time previously. The attending physician now resolved to use colchicum, and, in order to avoid its action upon the alimentary canal and to test its powers locally, it was decided to give it hypodermically. For this purpose the imported alkaloid was employed. Five minims of a one-tenth per cent. solution of Merck's colchicin was now ordered to be injected into the painful muscles as required, never more frequently than three times, but at least once, daily. To this was subsequently added a warm bath every night just before retiring, the liniment before mentioned being used once a day. Marked improvement was soon apparent, so that the patient himself remarked his comparative comfort and freedom from pain following the injections, a mere soreness remaining in the parts. Signs of incipient inflammation about the seat of one or two of the punctures were quick to disappear upon application of a solution of lead-water and laudanum.

The improvement was manifest from the start, and the patient rested well during this night for the first time since his attack began, and it continued in spite of a spell of continuous damp and chilly weather lasting several days; for, although it brought a slight return of the old symptoms, they were by no means so severe, and were easily controlled by the daily injections, in which there was no intermission. September 25 was again cloudy, and he complained of some soreness in the lumbar muscles. The pain had increased in the right side, because of which a deep injection was made on this day into the latter region, giving speedy relief. Now, although next day's weather was just as unfavorable, the muscular pains were entirely absent. Some remaining tenderness in the region of the sacrum was controlled by a belladonna plaster. Symptoms continuing favorable, he was discharged, cured, on October 6, having been free from pain for more than a week. He was instructed to return to the dispensary if he had more pains, but up to this date (November 8, 1882) he has not again sought relief.—A. B. Hirsh, M. D., in *Medical Times*, Dec. 2, 1882.

Drunk, or Dying!—This question is asked with more than usual interest in this city just now, since it is only recently that a prominent politician was carried to his room and left there for many hours, by friends who supposed him to be merely drunk, when, in fact, he was suffering from an apoplectic stroke which soon closed his career. Similar cases are being reported constantly in the daily papers, the unfortunates being, however, generally men of less note.

If a man is found unconscious in the street, or becomes so at a convivial party, he is ordinarily either drunk, narcotized from opium, or suffering from cerebral hemorrhage, and the bystanders usually regard themselves as competent to decide which, especially if the breath betrays the presence of liquor or laudanum. But even if a physician is called into the case, it is by no means an easy matter for him always to arrive at a correct and speedy diagnosis, and it is on this account that we propose to briefly discuss the question.

Face and skin: pale and relaxed in opium poisoning, and covered with a clammy sweat; in drunkenness, warm, full and purple, while all the features are more or less swollen and congested. In apoplexy the skin is usually warm, while the face will be pale if the effusion be large, but otherwise ordinarily flushed and purplish; facial paralysis will be shown by the drawing of the features to one side.

The breathing: in opium narcosis, shallow, sighing in character, and very slow; in drunkenness, full and noisy, apt to be somewhat slow and labored; in apoplexy, full and slow, and accompanied by snoring in inspiration, and flapping of the cheeks.

Pulse: somewhat alike in all three conditions, slow and small; but may be full in apoplexy, and sometimes intermitting.

The pupils: dilated, ordinarily, in drunkenness, strongly contracted in opium poisoning, dilated, and frequently unequal, in apoplexy.

With these symptoms carefully considered, and with due weight given to all attending circumstances, so far as they can be learned, such as the age, clothing, social condition, etc., a correct diagnosis can ordinarily be made. But in case of doubt, as between apoplexy and drunkenness—for opium narcosis can ordinarily be easily enough differentiated, it is certainly much better to express no positive opinion than to make a mistake, while in the meantime the patient can be treated symptomatically on general principles. If an expert chemist is immediately available, some urine may be drawn off and tested for morphia or alcohol, but ordinarily such tests must be limited to determining the presence of albumen. Even if alcohol were found in the urine, this would be merely presumptive proof against apoplexy, and confirmatory of alcoholism.—*Columbus Medical Journal.*

Short Weight Quinine Pills.—Our attention has been called to the publication of a "Special Article" in a Philadelphia medical journal, descriptive of the analyses of quinine pills. It appears that in October last, unbroken bottles, each containing 100—2 grain pills were purchased from seven of the largest manufacturers of these articles, or from their agents, placed in new bottles, numbered and submitted to analysis with the following results:

Manufacturer.	Grs.	Grs.	Grs.
John Wyeth & Bro., Philadelphia	2.10		
McKesson & Robbins, New York	1.76	1.76	
Bullock & Crenshaw, Philadelphia	1.99		
Wm. R. Warner & Co., Philadelphia	1.61	1.70	1.70
Parke, Davis & Co., Detroit	1.78	1.77	
Keasbey & Mattison, Philadelphia	1.71	1.87	1 92
W. H Schieffelin & Co., New York	1.91	1.91	

We have no special intention, for the present, at least, to pay any great attention to this matter, but it deserves a little more than a passing notice. Many of our readers will, in all probability, see the article to which we refer, and as they may be influenced by its perusal, we deem it best to call their attention to certain points which are worthy of consideration.

First. The pills were duly numbered and given to the chemist for analysis; this appears to have been done in order to prevent his becoming acquainted with the name of the maker so as to prejudice his results. From the physical appearance of the pills any one could have immediately distinguished, had he so desired, those of Messrs. Wyeth, McKesson & Robbins, Schieffelin and Parke, Davis & Co.

Second. The method of analysis has several very weak points. The separation by ether of the quinine is notoriously inaccurate and is worthless as a means of quantitatively estimating the alkaloid. No chemist of ability or education would be likely to use it. Other sources of error are manifest but *falsus in uno—falsus in omnibus.*

Third. In the analysis of Wyeth's pills (the compressed variety) the amount of quinine is reported as corresponding to quinine bisulphate, while in every

other case the alkaloid is reported in terms of the sulphate. Reduced to an equal basis, the amount of quinine contained in these pills would be equivalent to 1.67 instead of 2.10 grains.

Fourth. The table itself now demands our attention. The close agreement of the results among themselves is capable of two constructions. No chemist would be likely to obtain such concordant figures as those given; in actual practice identical results are the exception, not the rule. Supposing, however, that they were actually obtained, it demonstrates that McKesson & Robbins, Schieffelin, Parke, Davis & Co. and Warner did originally put a uniform quantity of quinine in their pills.

Fifth. The prices which are given are entirely erroneous. In some instances the wholesale figures are given, while in others the retail price is mentioned, thus entirely vitiating any deductions bearing on the value of the pill based upon the amount of quinine which it contains.

In conclusion, it is extremely unfortunate that the analyses are not vouched for by the name of some reliable analytical chemist. No authority whatever is mentioned. We should have supposed that in finding a discrepancy in the amount of the alkaloid, some effort would have been made to ascertain the reason of such a deficiency. Instead of this, an unwarranted attack, in a public journal, has been made upon manufacturers whose reputations are acknowledged and whose names are synonyms for honesty and reliable dealings. In a word, the whole affair has the appearance of an advertising dodge, and exhibits a lamentable lack of principle on the part of those who originated it. As the facts become known we shall return to this subject.—*American Pharmacist.*

Short-Weight Quinine Pills.—It is scarcely necessary to call attention to the results, as presented in this number of the News, of the analysis made of the quinine pills manufactured by the leading pharmaceutists of the country. Nothing is more important to the physician and his patients than accuracy in the preparation of the medicines which he prescribes, and so large a portion of the remedies most in vouge are now put up on a large scale in the form of granules and pills, and furnished in a shape ready for dispensing, that it becomes a matter of the utmost moment to the public that the profession shall be justified in placing confidence in the purity and accuracy of the remedies on which the welfare of a confiding community depends. In pursuance of its mission to neglect nothing which bears upon the interest of the profession, The Medical News has undertaken to examine the important article of quinine pills, as furnished by a number of the leading houses of the country. Every precaution has been observed to preserve the strictest impartiality and to obtain the most perfect accuracy as to results. The analyst is one of our most distinguished experts, and the arrangements were such that he could have no knowledge of the source from which the several specimens were obtained. We believe, therefore, that the results which we publish to-day may be implicitly relied upon.

Those results are by no means pleasant to contemplate. While it is a satisfaction to find that all the several samples of quinine pills were free from adulteration, that satisfaction is greatly diminished by the fact that all the samples but two were found to be sensibly deficient in quantity, the deficiency ranging from five to about twenty per cent. If this deficiency is constant, as our examination would seem to render probable, we have here a wrong committed upon the public, against which it is the duty of the profession, as the gardians of the public health, to record its emphatic protest.

It is to be hoped that this carelessness—to use no stronger term of reprobation—does not obtain thoroughout the whole of extensive list of drugs which are now thrown upon the market so plentifully in a finished state. That giving short weight is not necessary to the successful conduct of pharmaceutical manufacturing is evident from our tabulated results, which show that the houses giving the best measure are not among the least successful in the competition of trade.—*Philadelphia Medical News*, December 16, 1882.

How to Make a Poultice.—The editor of the London Practitioner offers numerous apologies for calling the attention of his readers to a matter seemingly so trivial; but his wise remarks show that his article needs no excuse, since we can easily recognize that it is just upon these important little details that the average practitioner is but imperfectly informed. He notes the fact that heat and cold will each often have the same effect on an inflamed part; the cold by causing the afferent arteries to contract and diminishing the amount of blood sent to the inflamed part; the heat by dilating the capillaries and affording a ready side outlet into the veins; in both cases, relieving the impact in the inflamed part. But the common practice of placing the linseed, or whatever may be used, directly on the surface, will not exert as much influence as though we allow the heat to penetrate directly to the diseased organ or part. He therefore recommends making a flannel bag, say 12x8, closed at three edges and open at the fourth. The linseed, bowl and spoon used in making the poultice should be well warmed in hot water, the poultice should be made with boiling water, and rather soft. The bag should be warmed by holding before the fire, before the poultice is poured into it, and being quickly wrapped in a strip of flannel (previously warmed) should be applied to the part. Thus the poultice may be applied to the skin, boiling hot, without burning: The two layers of flannel, which are at first dry, allow the heat to pass very gradually to the skin; as the moisture of the poultice soaks through them, they become better conductors, and the heat passes more quickly; but the increase is so gradual as not to cause any painful sensations whatever, but only one of soothing and comfort. The poultice also naturally keeps much longer hot, and the necessity for changing it arises much less frequently.

He has seen patients suffering from intense abdominal pain, at once relieved by a poultice made in this way; and so have we. These little points are too often neglected, and we can promise gratifying results to those who will commit these directions to memory and put them into practice.—*Medical and Surgical Reporter.*

Obstruction of the Bowels.—Though we seldom have unusual cases of obstruction of the bowels reported by American physicians (why, we cannot comprehend, unless it is that they fail to report their unusual cases), yet such cases are frequently found in foreign journals. One of the most instructive that we have lately encountered is reported in the London Practitioner, by Dr. J. Dickson Hunter, of Peru. A healthy man, æt. 50, complained of severe pain in the abdomen; his bowels had not been moved the day previous. Pulse and respiration frequent, tongue red and dry, abdomen enormously distended, and temperature above normal. There was considerable suppression of urine and vomiting of a slightly discolored water; occasional hiccough. A rectal tube and a No. 10 catheter could only be passed some two or three inches. An aspirator trocar was plunged into a particularly prominent part some three inches below the ribs on the left nipple line. Immediately, flatus could be heard and smelt escaping. Lighted matches were, at intervals, held before the trocar, and were quickly extinguished. When, at last, one burnt steadily, the instrument was withdrawn and oiled lint applied. The distention was somewhat lessened, but the next day was as bad as ever. He was chloroformed, and the hand introduced into the rectum. When it had passed for eight inches, it was found to be comparatively free,

in a vaulted cavity without any apparent exit. Upon careful examination, a slight projection was felt, something like a soft, but not prominent os uteri, with a central depression. By inserting one finger at a time, the hand was gradually passed through this depression, into a large, roomy cavity, in contact with a soft pultaceous substance. From the tip of the middle finger to the point where the arm was grasped by the anus, measured sixteen inches. A long tube was now passed along the arm and hand, which gave exit to a dark green semi-fluid and flatus. The hand was withdrawn, and as the fluid was escaping slowly, warm water was injected, which caused a copious discharge. He made a rapid recovery.—*Medical and Surgical Reporter.*

Patent Medicines and Physicians.—The court of Nimes, France, has just decided (Progrés Médical,) a case of some interest to American physicians. A regular physician became the accomplice of a quack, and applied the compounds made by the latter, and whose composition was unknown to him. He has, in consequence, been fined and imprisoned for the illegal practice of medicine. The existence of this French law is both a standing reproach and a good example to American Medical legislators. There is no denying that there are many physicians in the United States who prescribe patent medicines, of whose composition they know nothing.

According to the Michigan Medical News, this is largely done by physicians in that state.

The passage of a law prohibiting the use of secret remedies by regular physicians would enable the profession to rid itself of these parasites, while irregular practitioners could do as they chose. The act might read, "Any practitioner of medicine claiming to be a regular physician who shall prescribe secret remedies, the composition of which is unknown to him, shall be deemed guilty of a misdemeanor, punishable by fine or imprisonment, or both." That such an act can be passed in many states there can be no doubt.

The nucleus of such an act is to be found in the Pennsylvania act of 1870, prohibiting the advertisement of "medicines, drugs, and nostrums for the cure of secret diseases." This law has worked well, and it would seem that its amendment, in the direction indicated, would be an easy matter. The experiment might be tried in Pennsylvania first, and this would exercise considerable influence on other states.—*Amer. Med. Weekly.*

Sulphide of Calcium in Strumous Ophthalmia.—Dr. Snell speaks very highly of the sulphide of calcium in "strumous ophthalmia," classing under this name, phlyctenular and pustular conjunctivitis and keratitis.

It will be found particularly servicable in those cases of children with manifest strumous habit, enlarged cervical glands, swollen face, photophobia, and where on opening the eyes a gush of hot tears is emitted, and examination of the ocular surface discloses one or more phlyctenules on the cornea, or, it may be, merely vascularity of the conjunctiva. These cases, treated by the ordinary constitutional and local remedies, are often tedious, but under the sulphide of calcium, coupled with the usual local application, such as atropine and warm, poppy fomentations, they often quickly recover. The good effects of this remedy are also often conspicuous in other forms of phlyctenular conjunctivitis or keratitis. While he does not look upon the sulphide as a specific in this class of diseases, his experience justifies him in considering it a most useful remedy. The mode of administration is generally in the form of a powder. From one-tenth to one-fourth of a grain of the sulphide, rubbed up with a little sugar of milk, is given three times daily.—*Practitioner*, Jan., 1882.

Calcium Sulphide as an Anti-Suppurative.—The committee on restoratives of the Therapeutical Society recently reported to the Medical Society, of the county of New York, on the above subject. The report was based upon 51 cases in which the drug had been used, embracing the following diseases: Pustular acne, chancroidal bubo, furuncle, purulent ophthalmia, otorrhea, suppurative endometritis, axillary abscess, mammary abscess, phlegmonous periarthritis, phlegmon of the neck, hordeolum and bromic acne.

The report contained the following conclusions

1. In many cases of suppurative affections, ranging from simple pustules of acne to extensive suppuration, certainly an appreciable, often a marked, benefit is derived from the use of calcium sulphide. At the same time the action is not uniform.

2. The drug is somewhat prone to irritate the stomach, therefore, small doses, frequently repeated, should be used, and one-tenth grain every two hours in acute cases is an average dose, although larger doses may be required. Some patients may bear well one grain three times a day. Patients are more or less annoyed with eructations of sulphuretted hydrogen while taking the drug.—*Medical Record*, April 29, 1882.

Nitrite of Amyl and the Catamenial Flow.—I should be pleased to hear, through the medium of your valuable journal, whether any of your readers have observed what I believe to be a hitherto unrecognized physiological action of the nitrate of amyl. I have at present under my care a patient suffering from angina pectoris, who has been in the habit of inhaling the vapor of the nitrite to allay the spasm of that distressing complaint, and a married sister of the patient, who is nursing her, informs me that on entering the room, the atmosphere of which is impregnated with the vapor, the menstrual flow at once commences, and that on her leaving the room, and being no longer under the influence of the drug, it immediately ceases. The reason is, of course, perfectly obvious, but I cannot find ano note of it in my books of reference. I have mentioned this to Dr. Clifford Allbutt, who has kindly seen the case of angina with me, and he suggests that as the drug might be used in such cases as puerperal convulsions, when such an action would possibly be in the highest degree prejudicial, I should be justified in giving publicity to this interesting fact.—Dr. A. T. Bacon, in *The Lancet.*

The Chemistry of Pepsin.—P. Chapoteaut has found that an aqueous solution of gastric juice, previously dried and washed with ether, yields a pulverulent white precipitate when mixed with its own volume of alcohol. Since alcohol modifies the precipitate, it is better to use sulphuric acid, or some other acid which does not dissolve the precipitate if added in excess; excess of hydrochloric acid readily dissolves it. This white precipitate constitutes the active part of the gastric juice. In presence of a small quantity of lactic acid, it converts beef fibrin into syntonin in five or six minutes, and into peptone if heated to 60°. A liter of water dissolves 2 grams at the ordinary temperature, and the aqueous solution is not coagulated at 100° C. At this temperature, however, the substance loses its fermentative power. The substance is soluble in alkalies, and is re-precipitated by acids, but gradually loses its active properties. It is also precipitated by lime, baryta, and basic lead acetate. It exerts no action on polarized light, and contains $C_{51}H_{7.1}N_{15.4}$ per cent. Its composition is, therefore, similar to that of the albuminoids. It may be regarded as true pepsin, and exists in the gastric juice in the form of a potassium salt, together with another albuminoid which does not dissolve blood-fibrin, and a fatty acid which cannot displace the pepsin from its combination with potassium.—*Comptes Rendu.*, 94, 1722; 95, 140.

New Remedies.

Nitroglycerine. — Glonoin was discovered by Sobrero in 1847, and since which time, in its various combinations, has been largely manufactured, principally for blasting and submarine operations. For the latter use its property of detonating under water makes it especially valuable.

In medicine this substance has not figured very extensively, nor have the experimental investigations regarding its applicability to the treatment of diseases been sufficiently adequate to mark out its definite sphere in therapeutics. Soon after its discovery it had for a some time some reputation in a few functional diseases, but gradually fell into disuse, possibly for want of proper knowledge in reference to its exhibition and physiological action. It was, however, not long doomed to obscurity, being prominently placed before the profession as a remedy for angina pectoris by Dr. William Murrell, of London (which gentleman I notice has a monograph out on the subject mentioned), and to him probably is due the present spirit of investigation in this country.

As yet, not much is known relative to the physiological action of nitroglycerine, except that it is a powerful toxic agent, even in minute portions, and that its effect is mainly upon the nervous system. In animals poisoned by it, the brain has been found both pale and congested; the lungs engorged, and the heart empty. According to Murrell,* two drops of a one per cent. solution will in man produce flushing of the face, a rise of the pulse-rate, and a decrease in the fullness of the arteries. These effects to be subsequently followed by intense pallor and faintness. Sometimes I have obtained results like the above with less than a one drop dose, and then again no such symptoms where several drops were given to persons with cerebral hyperæmia. From what research has been made, and from the pathological conditions in the diseases in which it acts with benefit, we may safely accredit its action mainly to that system of nerves known as vaso-motor. Given to a healthy person its usual primary effect is a determination of blood to the periphery, said to be due to vaso-motor paralysis. In this we cannot be too positive, for, as yet, we do not know by what mechanism the tonicity of the arterioles is maintained —whether there are constrictor and dilator fibers; or if one set of fibers may not, under dissimilar conditions, produce both dilation and contraction. Certain we are, that in normality a state of arterial equilibrity exists, and that nitroglycerine interferes with such equilibrium. If we allow that there are two sets of fibers (dilator and constrictor) governing the calibre of vessels, we find a ready explanation of how anæmia or hyperæmia is produced, viz., by spasm of the one or the other sets. Here, then, it follows that glonoin may act by simply relaxing spasm where either condition obtains. This it probably does, possibly on the principle of action and reaction. Says Bartholow: "To every action there is an equal and opposite reaction"†; to be understood that where a function is abnormally stimulated, natural forces tend to restore the function or even carry the sedative action beyond normal equilibrium. If we glance at the diseases in which this remedy has an admitted usefulness, we shall find at least a hypothetical substantiation of the above theory.

Take angina pectoris—this is a disease in which the exact pathological state is unknown; yet it seems quite likely that the coronary arteries are at fault—a condition of spasm existing whereby the nutrition of the heart is interfered with.

Dr. Hammond‡ speaks highly of glonoin in migraine, especially in the angiospastic form; also certain forms of epilepsy—maladies generally regarded as due to arterial spasm. For the past year I have used nitroglycerine in several (supposed) cases of cerebral anæmia, hyperæmia and congestion with a sufficient amount of success to warrant its recommendation. We do not regard these conditions as diseases *per se*, but they are symptoms due to perverted nerve action and consequent unstable arterial equilibrium. Says Beard: "The whole set of modern science is indeed now in favor of the view * * * that the waves of blood into the nerve-centres, or out of the nerve-centres, move in obedience to nerve force." Again: "Anæmias, hyperæmias and congestions, and the opposite states are the resultants of the state of the nerves of cerebro-spinal and the vaso-motor systems."§ The two following cases will conclude study of glonoin:

Case 1.—Mrs. J., æt. 36, married and has one child, general appearance good, consulted me about one year ago for an almost continuous headache which she said had resisted all manner of treatment. Patient's strength was fair, and there was no constitutional taint; appetite good; pain in head was diffused and worse when standing; there were snapping sounds in the ears and frequently faintness. The heart was easily excited; the pulse somewhat rapid; the conjunctiva and retina pale. In fact many other symptoms common to cerebral anæmia were present. Her condition had been thought to be due to malarial poisoning, and the various antiperiodics were tried. These failing, a trip from home had been advised and taken, without, however, any alleviation. With this array of facts before me, and in view of further consideration and as an experiment, I gave pills containing 1-100 grain of nitroglycerine, four to be taken daily. At her next call, rather to my surprise, she reported herself better than before in a long time. I accordingly ordered a continuation of the pills, five daily. They were taken for three weeks, when all pain and head symptoms disappeared; nor has there been a recurrence since.

Case 2.—E. L., æt. 28, a strong and well developed man, weighing 160 pounds, presented himself four months ago with the following history: Six years ago he was severely shocked by lightning, so much so that he was thrown down and remained stupid for some hours after. This accident was followed by severe cephalalgia, which finally became nearly continuous, though not at all times so intense. An exacerbation would follow whenever excited or overworked. The headache was not limited to any particular region of the head; epistaxis was usually profuse, and numbness of one or both arms at the time of a paroxysm. With the above the following was elicited by examination: Heart's action full and regular (74 beats per minute); tongue clean; appetite good; no digestive trouble; no history of syphilis. Patient complained of his head feeling "like a load," of "spots before his eyes and sounds in ears," of a "growing loss of memory." The conjunctiva was deeply congested and the retinal vessels seemingly enlarged; the pupils were contracted; sometimes difficulty in distinguishing objects. The face was not flushed, nor did the carotid vessels pulsate abnormally; his nights were wakeful, and when the paroxysm was passing off, the pain would be confined to the occipital region, due probably to surchargement of the lateral sinuses. The above with other symptoms common to cerebral congestion existed, and I accordingly gave my diagnosis as cerebral congestion due to vaso-motor derangement, resulting from the shock received six years previously. He informed me he had consulted no less than fourteen different physicians during the six years. From some he had gotten temporary benefit, from others none at all. I first prescribed forty grains of bromide of potash three times a day. This gave slight relief, but nothing satisfactory. I followed with full doses of ergotine in combination with small doses of morphia and cannabis indica, but with little or no better effects. Not exactly knowing what to do, I

*National Dispensatory.

†Medical News, 1882.

‡Medical Record, Vol. xx, 1881, N. Y.

§Neurasthenia, second edition, 1880.

ordered one drop doses of nitroglycerine four or five times daily. I did not see my patient again for several days, but when he came in he was very much improved, having very little pain in head, though the eyes were still red. I ordered him to continue the glonoin for two or three weeks, and at the expiration of that time all symptoms had vanished. Eyes were perfectly clear, and there was no fullness of head. I now stopped the nitroglycerine and put him on pills of strychnia and conium, but he had only taken these pills one week when he returned with his old trouble, caused, he thought, by "taking cold." I returned to the nitroglycerine in pills of 1-50 gr. three times a day, when again his trouble speedily disappeared. He, however, still takes the above dose and has not had a single recurrence of the trouble.

In conclusion, I will say I have found the remedy quite useful in many conditions similar to those above noted. I have used both the solution and the pills—the latter put up by P., D. & Co.—with good results. I am therefore compelled to believe that glonoin takes an unoccupied place in the treatment of many of our vague forms of nervous derangements.—P. S. Root, M. D., in *Detroit Clinic*, Dec. 13, 1882.

Note on Convallaria Majalis.*—Recent communications made to the Academy of Sciences and Academy of Medicine, by Professors Vulpian and Sée have attracted the attention of the medical profession to a new remedy derived from the lily of the valley (convallaria majalis). Without dilating upon the botanical characters of this beautiful little annual, belonging to the sub-order Asparageæ, I will briefly recapitulate its chemical composition.

The action of this medicament appears to be due to a glucoside and an alkaloid. Valz, in 1830, isolated from it two glucosides, "convallamarin" and "convallarin." In 1865, Stanislas Martin obtained an alkaloid, "maïaline," an acid, "maïalic acid," an essential oil, a yellow coloring matter and wax. This plant, therefore, contains several principles that are themselves subject to modification. In fact, under the influence of dilute acids, convallamarin splits up into sugar and "convallamaretin," and convallarin into sugar and "convallaretin." The chemical composition being known, it was necessary to determine the seat of the active principles, it being easy to foresee that the effects would be different according to the parts of the plant employed. The experiments made hitherto have indicated that all the activity resides in convallamarin and maïaline, convallarin appearing to be nearly inert.

Already for a long time the convallaria majalis has attracted the attention of the scientific world. Cazin tried the flowers under the form of an electuary and obtained abundant stools; the root produced emeto-cathartic effects. Schultze prepared an alcoholic extract of the flowers, which was bitter and purgative with a dose of two grains.

Wouters, Peyrille, Cartheusen and Klein made it out to be a purgative analogous to scammony and aloes. I wish to emphasize this point, because one of the difficulties met with is the elimination, at least partially, of the purgative principle. The extract actually prepared is exempt from it.

In idiopathic epilepsy, headaches and convulsions, Senckenberg, father and son, employed it in doses of from 1 to 4 grams. Hitherto, it would appear, the action on the heart was not even suspected.

In 1880, some Russian physicians experimented with an infusion of the plant, but without sensible results.

Recently the convallaria majalis has been tried by Professor Sée in his clinical practice at the Hôtel Dieu, physiological researches being made simultaneously in the laboratory of Messrs. Bochefontaine and Hardy. Alcoholates and tinctures of the entire plant and of the various parts were prepared, but the results upon the heart were not conclusive. Infusions, even in large doses (6 or 7 grams of the plant) were not uniformly successful. It became necessary, therefore, to prepare extracts of the entire plant, and each of its parts, taking into account the action of the menstruum upon the active principles contained in the plant.

The aqueous, alcoholic and hydro-alcoholic extracts prepared from the roots did not give the results sought for. In my opinion, the emeto-cathartic action which was observed in a series of extracts prepared by me, was to be attributed to the presence of too large a proportion of the roots.

The aqueous, alcoholic and hydro-alcoholic extracts of the leaves are three times less active than the extract actually prepared. Moreover, the aqueous and alcoholic extracts of the root and leaves, whilst fulfilling the therapeutic indications, possessed emetic and purgative properties if the dose given were too high.

The extracts prepared from the flowers and stalks, gave good results, especially with animals, in which the cardiac phenomena observed were very remarkable; they were unaccompanied by emetic or purgative effects, but with very slight diuresis.

From the foregoing facts it would appear that each part of the plant employed produces a slightly varied effect. After several trials made with the flowers, stalks, leaves and roots, the best results were obtained with an aqueous extract prepared from the flowers and stalks of the convallaria majalis, with the addition of a third of their weight of roots and leaves.

This extract, deprived in great part of the resinous purgative principle, is solid in consistencé, shining black, possesses a very bitter taste, is soluble in all proportions in water and alcohol, and has an agreeable persistent odor. It is used in the preparation of an aromatized syrup, having a free bitterness without after-taste, and containing 50 centigrams of extract to a tablespoonful. It is under this form and in doses of 2, 3 or 4 spoonfuls that the medicament is prescribed in the treatment of cardiac affections.—A. Langlebert, in the *Pharmaceutical Journal and Transactions*.

Experimental Researches Upon the Convallaria Majalis.*—The lily of the valley has been known from time immemorial among the Russian peasants as a certain remedy for dropsy. This popular belief became in 1880 the subject of experiment by Messrs. Troitzky and Bojojavlensky, but insufficient was published to attract attention to the subject. The statements, however, being supported by Professor Botkin, of St. Petersburg, impressed the author, who took the first opportunity for their verification, it being necessary to procure the plant in flower to determine the active part.

The Russian physicians had spoken of infusions, without saying whether they were prepared from the flowers, leaves, stalks, roots, or entire plants. The various parts of the plant were therefore tried under the form of infusions, aqueous or alcoholic macerations, and lastly of extracts. The infusion of the flowers was without effect, even in doses equal to five or six grams of the flowers, whilst the tinctures and even the alcoholatures were infinitely less active than the extracts, which M. Sée classes as follows, according to their order of merit: (1) aqueous extracts of the leaves, which require a dose three times as large as the extracts from other parts of the plant; (2) extracts of the flowers, which exercise upon animals a very energetic action, and upon man a much less intense one; (3) extracts of the entire plant, including flowers, stalks and roots.

Valz, in 1830, obtained from the aqueous extract of the dried flowers and roots the toxic principle called "convallamarin;" the alcoholic extract yields "convallarin," which is of little importance. The former

*L'Union Pharmaceutique, xxiii., 338.

*Abstract of a paper read before the Academy of Medicine (L'Union Pharmaceutique, xxiii., 337).

principle is a glucoside, splitting up, under the influence of acids, into sugar and convallamaretin.

M. Hardy, demonstrator of chemistry in the laboratory of the Hôtel-Dieu, has obtained convallamarin in the amorphous state. It was obtained from extracts of the plant, by Dragendorff's process; treating the acidulated aqueous extract with alcohol and then with chloroform or amylic alcohol. This principle has an activity comparable to that of pure digitaline, with which experiment shows it to have points of analogy as well as of difference.

In order to arrive at the therapeutic dose of the extracts to be given to man, preliminary trials were carefully made first upon animals. By an approximative calculation, based upon corporeal weight, the dose useful in cardiac disease was determined. It may be thus formulated: 1 gram to 1½ or even 2 grams of extract of the flowers or of the entire plant; extract of the leaves is only active with double this dose.—G. Sée, in the *Pharmaceutical Journal and Transactions.*

Cascara as a Laxative.—Dr. Carter, of Liverpool, in an article on new therapeutic agents, writes to the following effect concerning cascara (*rhamnus purshiana*): The fluid extract prepared from the bark of this shrub, or small tree, is an excellent remedy in chronic constipation. I have used it now for two years, and have no doubt of its value. The fluid extract is reddish brown in color, and extremely bitter. A very good method of prescribing it is in a mixture, with twice its quantity of glycerine, or one of the flavored syrups. Of this a fluidrachm should be given three times a day, and the dose be diminished as soon as its aperient action is developed. It is what may be termed a tonic aperient, and seems to produce an effect somewhat like that caused by belladonna and nux vomica united with an ordinary aperient. It evacuates the whole canal. The motion is not watery, but usually semi-solid, truly feculent in character, and voided without difficulty, and so far from causing subsequent constipation, the bowels will often act regularly after its use has been entirely discontinued. I have used it so extensively, and the testimony to its value is so unmistakable, that it would be difficult to select particular cases to prove this.—*Medical Record.*

Aspidospermine (Quebracho).—The powder of the bark of a tree (aspidosperma quebracho) found in the Argentine Republic, was first used in Europe by Penzoldt, of Erlangen, as a remedy in dyspnœa.

According to M. Burgos, the powder of white quebracho has all the physical and organic properties of powdered quinquina, and is also antiseptic. The decoction is employed as a tonic and febrifuge.

It produces a diminution in the frequency of the pulse and respiration. (Berthold, Picot, Berger, Laquer).

If used continuously for a period, it induces cephalalgia, vertigo, dullness of the intellectual functions and abundant salivation (Laquer, Berger).

This bark contains tannin in abundance, and two alkaloids, aspidospermine and quebrachine; this last is said to have an action similar to that of curare. The sulphate and chlorhydrate of aspidospermine are very soluble, and the solutions are very bitter. The chlorhydrate has been employed by Penzoldt. The following solution for hypodermic injection is indicated in the Medical Kalender und Recept-taeschenbuch für die Artze des deutschen Reiches. 1883.

℞ Aspidospermine, gr. xv.
Aquæ destill, ʒ xiij.
Ac. sulphuric, q. s.

Twenty minims is a dose, containing nearly one-half grain of the alkaloid.

Aspidospermine and its salts have appeared efficacious in dyspnœa, no matter whence its source (Penzoldt, Picot, Skoda, Krauth.)—*Medical and Surgical Reporter.*

Chinoline.—This substance was formerly called leukoline, is a constituent of coal tar and Dippel's oil, and may be prepared synthetically by treating anilin or nitrobenzol with glycerine in presence of a dehydrating agent. The alkaloid is an oily liquid boiling at 255° C., is soluble in alcohol, ether, chloroform and forms salts with acids that are generally crystallizable with difficulty. The tartrate is, however, an exception, as it may be obtained in tolerable good form. It is permanent, is soluble in water, has an odor recalling bitter almonds, and a taste like peppermint. It is claimed that chinoline in therapeutical action is perfectly analagous to quinine, and a number of trials afford confirmatory evidence of this. An American firm are now offering the tartrate for medical use, and it is being experimented with in many places; among others, in Toronto, and can be procured from our wholesale houses here. The price is about three-fourths that of quinine; and the dose of the salt is from four to sixteen grains per day.—*Canadian Pharm. Journal,* Nov., 1882.

Avena Sativa.—The most remarkable and hitherto unheard of properties are ascribed to tincture of oats, avena sativa, by Dr. Sell, in the New York Medical Gazette. It is "diuretic, slightly laxative, tonic, stimulant, but especially nerve stimulant. It is said to be efficacious in female diseases; useful as a substitute for intoxicating drinks, invaluable in insomnia, and a perfect cure for the opium habit. Several cases of its wonderful virtue in the last mentioned complaint are instanced by the author, who is very enthusiastic in the praise of his discovery of this new panacea. We can ourselves bear evidence of the virtue of this remedy, having tried it frequently in gastralgia produced by prolonged abstinence from food. Administered in the form of porridge, and with the addition of the milk of the cow, *Bos taurus*, it always proves wonderfully satisfactory.—*Canadian Pharm. Journal.*

Caroba Mixture.—According to J. Moeller, who is writing a series of illustrated articles on American Drugs in the Centralhalle, the following electuary, which has been prescribed frequently by Dr. Carneiro, a Brazilian physician, is of great efficacy in syphilitic skin affections:

Caroba leaves, powdered, 90 parts.
Sarsaparilla, powdered, 30 parts.
Senna leaves, powdered, 30 parts.
Calomel, 2 parts.
Simple syrup, q. s.

A teaspoonful to be taken night and morning with caroba tea. Caroba leaves are the product of a Brazilian shrub, Jacaranda procera, and of several other closely allied members of the Bignonaceæ. Dr. Peckolt claims to have extracted an alkaloid from the plant which he names carobine, which is efficacious in syphilitic and scrofulous affections in doses of 0.05 gramme.—*American Pharmacist*

Condurango and Carcinoma.—A. Hoffmann, Diss. Basel, 1881, Centralblatt, f. Med. Wissensch. No. 15, 1882. H. gives a tabulated list of all cases of carcinoma treated with condurango in the hospital at Basel, since 1871. For three years past all cases of cancer of the stomach and bowels have been treated exclusively with condurango. His list embraces in all, 132 cases. Treated with condurango, 20; of these, 2 remain unimproved; improved, 8; died, 10. Treated without condurango, 108; unimproved, 28; improved, 10; died, 70.—*The American Medical Weekly,* Aug. 19, 1882.

Euphorbia Pilulifera, a Remedy for Asthma.—A new remedy for the relief of the most obstinate asthma has been announced. Put one ounce of euphorbia pilulifera (indigenous to Queensland in Australia) in two quarts of water, and simmer until reduced to one quart. Take a wine-glassful at a time.—*Pacific Med. and Surg. Journal.*